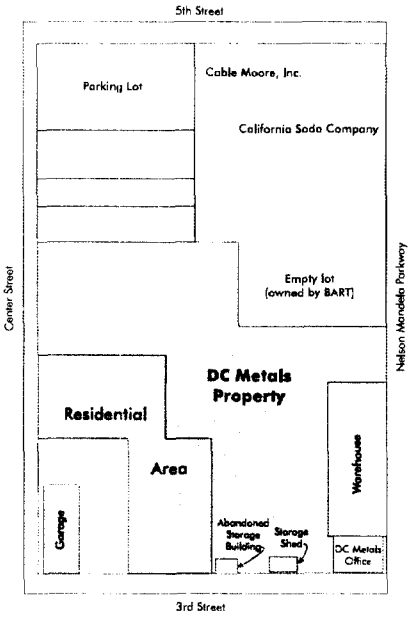
POOR LEGIBILITY

ONE OR MORE PAGES IN THIS DOCUMENT ARE DIFFICULT TO READ
DUE TO THE QUALITY OF THE ORIGINAL

AMCO Chemical Site
(aka DC Metals)
Oakland, California



Preliminary Assessment/Site Investigation Report

Volume 3

Final
August 2001

Prepared For:

U.S. Environmental Protection Agency

EPA
REGION IX

Prepared By:

Ecology and Environment, Inc.
SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

REGION 9
START

TABLE OF CONTENTS

Volume 3

DATA SUMMARIES

Sample Marix: Residential Soil Gas, Crawlspace Air and Ambient Air
Analysis: Vinyl Chloride by EPA TO-14
Sample Date(s): 9/8/99, 9/13/99
Laboratory: Air Toxics, Ltd.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	**Location: Oakland, CA**
Project TDD Number: 09-9712-0005	**PAN: 09-0256-DCST-XX**
Laboratory: Air Toxics, Ltd.	**Lab Project Number: 9909136**
Sampling Dates: 9/8/99	**Sample Matrix: air**
Analytical Method: EPA TO14-Vinyl chloride	**Data Reviewer: Edward Long**

REVIEW AND APPROVAL:

Data Reviewer: Edward J. Long **Date:** 10/20/99

Technical QA Reviewer: [signature] **Date:** 10/27/99

Project Manager: [signature] **Date:** 10/21/99

SAMPLE IDENTIFICATION:

Sample No.	Sample I.D.	Laboratory I.D.
1	SG-53	9909136-01A
2	AA-53	9909136-02A
3	SG-55	9909136-03A
4	AA-55	9909136-04A
5	CA-55	9909136-05A
6	AA-58	9909136-06A

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

DATA PACKAGE COMPLETENESS CHECKLIST:

Checklist Code:

X	Included: no problems
*	Included: problems noted in review
O	Not Included and/or Not Available
NR	Not Required
RS	Provided As Re-submission

Case Narrative:

X	Case Narrative present

Quality Control Summary Package:

X	Data Summary sheets
O	Matrix Spike/Spike Duplicate Recoveries
X	Laboratory Control Sample Recoveries
X	Method Blank Summaries
X	GC/MS Tuning and Mass Calibration
X	Initial Calibration Data
X	Continuing Calibration Data
X	Surrogate Compound Recovery Summary
X	Internal Standard Area Summary

Sample and Blank Data Package Section

X	Reconstructed Ion Current (RIC) Chromatogram
X	Quantitation Reports
X	Raw and Enhanced Mass Spectra
X	Reference Mass Spectra for Target Compounds
NR	Mass Spectral Library Search for TICs

Raw QC Data Package Section

X	DFTPP and/or BFB mass spectra and mass listings
X	RIC Chromatogram for Standards and MS/MSD Samples
X	Quantitation Reports for Standards and MS/MSD
O	List of Instrument Detection Limits
X	Chain-of-Custody Records
X	Sample Preparation and Analysis Run Logs

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

DATA VALIDATION SUMMARY

The data were reviewed following procedures and limits specified in the EPA OSWER directive, *Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan and Data Validation Procedures* (EPA/540/G-90/004, OSWER Directive 9360.4-01, dated April 1990).

Indicate with a YES or NO whether each item is acceptable:

1	Holding Times	Yes
2	GC/MS Tuning Criteria	Yes
3	Initial Calibrations	Yes
4	Continuing Calibrations	Yes
5	Laboratory Control Sample	Yes
6	Matrix Spike/Matrix Spike Duplicate	Not analyzed
7	Blanks and Background Samples	Yes
8	Surrogate Compounds	Yes
9	Internal Standards	Yes
10	Duplicate Analyses	Yes
11	Analyte Identification	Yes
12	Analyte Quantitation	Yes
13	Overall Assessment of Data	Yes
14	Usability of Data	Yes

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

1. HOLDING TIMES

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Samples were extracted and analyzed within required holding times except as noted under Comments. In addition, no problems were identified with regard to sample preservation or custody unless specified. For those sample fractions extracted or analyzed outside holding time requirements, the results have been qualified as estimated (J).

Air Samples:
EPA TO-14: 14 days (from collection) for analysis.

Comments: None.

2. GC/MS TUNING CRITERIA

__X__ BFB has been run for every 12 hours of sample analysis per instrument.

__X__ The BFB ion abundance criteria indicated in EPA/540/G-90/004 have been met for each instrument.

Comments: None.

3. INITIAL CALIBRATIONS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Unless flagged below, a 5-point initial calibration was run. In addition, average Relative Response Factor (RRF), and percent relative Standard Deviation (%RSD) values were within control limits (average RRF >= 0.05; %RSD <= 30). For analytes which exceeded these control limits, associated data are qualified as estimated (J). In cases where the low calibration level was not detected, the detection limit is qualified (UJ). In cases where the analyte was not detected in the calibration, all associated data are rejected (R).

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

4. CONTINUING CALIBRATIONS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Unless flagged below, continuing calibrations were performed at the beginning and at the end of any group of samples and at least every 12 hours. In addition, Relative Response Factors (RRF), and Percent Difference (%D) values were within control limits (RRF >= 0.05; %D <= 30). For analytes which exceeded these control limits, associated data are qualified as estimated (J). In cases where the low calibration level was not detected, the detection limit is qualified (UJ). In cases where the analyte was not detected in the calibration, all associated data are rejected (R).

Comments: None.

5. LABORATORY CONTROL SAMPLE

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
_____ No Laboratory Control Samples Analyzed

Laboratory control sample recoveries are used for a qualitative indication of accuracy (bias) independent of matrix effects. Spike recovery limits of 70% to 130% are specified in the method.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

_____ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
__X__ No Matrix Spike/Matrix Spike Duplicates Analyzed

Matrix spike and matrix spike duplicate recoveries are used for a qualitative indication of accuracy (bias) due to matrix effects. The RPD between the recoveries is used for a qualitative indication of precision. Spike recovery limits of 80% to 120% are specified in EPA/540/G-90/004. For analytes which exceeded these control limits, associated detected results are qualified as estimated (J). At the discretion of the reviewer, other limits may be used only if justification can be provided.

Comments: None.

7. BLANKS AND BACKGROUND SAMPLES

__X__ Acceptable
_____ Practical Quantitation Limit Adjusted

The following blanks were analyzed:
__X__ Method (preparation) Blanks
_____ Field Blanks
_____ Instrument Blanks
_____ Equipment Blanks
__X__ Background Samples
_____ VOA Trip Blanks

Preparation (method) blanks were prepared for each batch of samples extracted. A preparation blank was analyzed after every continuing calibration standard, prior to sample analysis unless noted below. Any compound detected in the sample and also detected in any associated blank, must be qualified as non-detect (U) when the sample concentration is less than 5x the blank concentration.

Comments: Method blank and background sample results were nondetected.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

8. SURROGATE COMPOUNDS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Surrogate compound recoveries for samples analyzed within a sample group must be within the limits specified in the method. If the surrogate recovery is between 10% and the lower limit, the associated detected results are qualified as estimated (J) and the nondetected results are qualified as estimated (UJ). If the surrogate recovery is <10%, the associated detected results are qualified as estimated (J) and the nondetected results are rejected (R). If the surrogate recovery is above the upper limit, the associated detected results are qualified as estimated (J). Surrogate recoveries which exceeded these limits are noted below and the associated results are qualified on the attached sample report forms.

Comments: None.

9. INTERNAL STANDARDS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Internal Standard area counts for samples analyzed within a sample group must be within the range of 50% to 200% of the internal standard area for the continuing calibration. If the internal standard area is between 10% and 50% of this value, the associated detected results are qualified as estimated (J) and the nondetected results are qualified as estimated (UJ). If the internal standard area is <10% of the calibration area, both the detected and nondetected results are rejected (R). If the internal standard area is >200% of the calibration area, the associated detected results are qualified as estimated (J). Internal standards which exceeded these limits are noted below and the associated results are qualified on the attached sample report forms.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

10. DUPLICATE ANALYSES

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
_____ No Duplicates Analyzed

Type of duplicates analyzed:
_____ Field Duplicates
__X__ Laboratory Duplicates

Calculate the relative Percent Difference (RPD) between the members of duplicate pairs using the equation indicated below. Qualify the results as estimated (J) for any analyte whose RPD exceeds that specified in the Field Sampling Plan and Quality Assurance Project Plan (FSP/QAPP).

$$RPD = \frac{2(Value\ 1 - Value\ 2)}{Value\ 1 + Value\ 2} \times 100\%$$

Comments: None.

11. ANALYTE IDENTIFICATION

Evaluate the ion profiles for the sample analytes and compare them to the library ion profiles provided by the laboratory. Note any identifications which are not sufficiently supported by comparison to known ion profiles.

Comments:
Analyte identification is acceptable.

12. ANALYTE QUANTITATION

Confirm that analyte quantitation was performed correctly using the following formulas:

EPA TO14, air samples:

$$ppbv = \frac{(analyte\ area)(amount\ of\ internal\ standard,\ ng)}{(internal\ standard\ area)(RF)(volume\ of\ air,\ L)(dilution\ factor)}$$

Comments:
Analyte quantitation is acceptable.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

13. OVERALL ASSESSMENT OF DATA

On the basis of this review, the following determination has been made with regard to the overall data usability for the specified level.

__X__ **Acceptable**
_____ **Acceptable with Qualification**
_____ **Rejected**

Accepted data meet the minimum requirements for the following EPA data category:
_____ **ERS Screening**
_____ **Non-definitive with 10 % Conformation by Definitive Methodology**
_____ **Definitive, Comprehensive Statistical Error Determination was performed.**
__X__ **Definitive, Comprehensive Statistical Error Determination was not performed.**

Any qualifications to individual sample analysis results are detailed in the appropriate section above or appear under the comments section below. In cases where several QC criteria are out of specification, it may be appropriate to further qualify the data usability. The data reviewer must use professional judgment and express concerns and comments on the data validity for each specific data package.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

14. USABILITY OF DATA

A. These data are considered usable for the following the data use objectives stated in the DC Metals Site Field Sampling Plan and Quality Assurance Project Plan (FSP/QAPP).

The following data use objectives were indicated in the FSP/QAPP:
1. To determine whether vinyl chloride is present at concentrations at or exceeding the site action levels set by the EPA.
2. To determine whether air exhaust systems should be installed.
3. To provide initial data necessary to begin a Hazard Ranking System for the site.

No results were qualified as rejected, estimated, or nondetected. The data are usable for the purposes indicated above.

B. These data meet quality objectives stated in the FSP/QAPP.
Data quality objectives are indicated in Section 3.5 of the FSP/QAPP. The data meet the quality criteria described in the SAP.

15. DOCUMENTATION OF LABORATORY CORRECTIVE ACTION

Problem: No problems requiring corrective action were observed.
Resolution: Not required.

Attached are copies of all data summary sheets with data qualifiers indicated, and a copy of the chain of custody for the samples.

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

9909136

75 Hawthorne Street
San Francisco, California 94105

CHAIN OF CUSTODY RECORD

PROJ. NO. 0256 DCST

PROJECT NAME: DC Metals

SAMPLERS: (Signature) Mcleod

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Vinyl Chloride by SIM TO-14		Initial Pressure	Start time	End time	Final Pressure	REMARKS
SG-53	9/8/99	1644		X	1436 3rd St.	1x6L	X		30	1641	1644	0	
AA-53	9/8/99	1645		X		1x6L	X		27	1156	1645	9.5"	
SG-55	9/8/99	1600		X	326 Center St.	1x6L	X		29	1600	1600	0	
AA-55	9/8/99	1650		X		1x6L	X		30	1140	1650	8"	
CA-55	9/8/99	1550		X		1x6L	X		28	1141	1550	0	
AA-58	9/8/99	1654		X	Background-Lewis St.	1x6L	X		28	1212	1659	6"	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Thomas Hensley	9/9/99 1700				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
			9/10/99 8125		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

Custody Seal intact? Y N None Temp. —

9 24375

AIR TOXICS LTD.

000026

SAMPLE NAME : SG-53

ID#: 9909136-01A

EPA METHOD TO-14 GC/MS

File Name:	**t091515**	**Date of Collection:**	**9/8/99**
Dil. Factor:	**1.36**	**Date of Analysis:**	**9/15/99**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.014	0.035	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130

10/20/99

AIR TOXICS LTD.

SAMPLE NAME : AA-53

ID#: 9909136-02A

EPA METHOD TO-14 GC/MS

File Name:	t091516	**Date of Collection:**	9/8/99
Dil. Factor:	1.83	**Date of Analysis:**	9/15/99

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.018	0.048	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130

10/20/99

AIR TOXICS LTD.

SAMPLE NAME : SG-55

ID#: 9909136-03A

EPA METHOD TO-14 GC/MS

File Name:	**t091607**	**Date of Collection:**	**9/8/99**
Dil. Factor:	**2.35**	**Date of Analysis:**	**9/16/99**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.024	0.061	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130

10/20/99

AIR TOXICS LTD.

SAMPLE NAME : AA-55

ID#: 9909136-04A

EPA METHOD TO-14 GC/MS

File Name:	**t091518**	**Date of Collection:**	**9/8/99**
Dil. Factor:	**1.75**	**Date of Analysis:**	**9/15/99**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.018	0.045	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130

10/20/99

AIR TOXICS LTD.

SAMPLE NAME : CA-55

ID#: 9909136-05A

EPA METHOD TO-14 GC/MS

File Name:	t091520	**Date of Collection:**	9/8/99
Dil. Factor:	1.34	**Date of Analysis:**	9/16/99

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.013	0.035	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130

10/20/99

AIR TOXICS LTD.

SAMPLE NAME : AA-58

000056

ID#: 9909136-06A

EPA METHOD TO-14 GC/MS

File Name:	**t091521**	**Date of Collection:**	**9/8/99**
Dil. Factor:	**1.75**	**Date of Analysis:**	**9/16/99**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.018	0.045	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130

10/20/99

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	**Location: Oakland, CA**
Project TDD Number: 09-9712-0005	**PAN: 09-0256-DCST-XX**
Laboratory: Air Toxics, Ltd.	**Lab Project Number: 9909168A**
Sampling Dates: 9/13/99	**Sample Matrix: air**
Analytical Method: EPA TO14-Vinyl chloride	**Data Reviewer: Edward Long**

REVIEW AND APPROVAL:

Data Reviewer: Edward J. Long **Date:** 10/20/99

Technical QA Reviewer: [signature] **Date:** 10/21/99

Project Manager: [signature] **Date:** 10/21/99

SAMPLE IDENTIFICATION:

Sample No.	Sample I.D.	Laboratory I.D.
1	AA-59	9909168A-01A
2	AA-52	9909168A-02A
3	CA-52	9909168A-03A
4	SG-52	9909168A-04A
5	AA-51	9909168A-05A
6	CA-51	9909168A-06A
7	CA-552	9909168A-08A
8	AA-50	9909168A-09A
9	CA-50	9909168A-10A
10	SG-50	9909168A-11A

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

DATA PACKAGE COMPLETENESS CHECKLIST:

Checklist Code:

- X — Included: no problems
- * — Included: problems noted in review
- O — Not Included and/or Not Available
- NR — Not Required
- RS — Provided As Re-submission

Case Narrative:

- X — Case Narrative present

Quality Control Summary Package:

- X — Data Summary sheets
- O — Matrix Spike/Spike Duplicate Recoveries
- X — Laboratory Control Sample Recoveries
- X — Method Blank Summaries
- X — GC/MS Tuning and Mass Calibration
- X — Initial Calibration Data
- X — Continuing Calibration Data
- X — Surrogate Compound Recovery Summary
- X — Internal Standard Area Summary

Sample and Blank Data Package Section

- X — Reconstructed Ion Current (RIC) Chromatogram
- X — Quantitation Reports
- X — Raw and Enhanced Mass Spectra
- X — Reference Mass Spectra for Target Compounds
- NR — Mass Spectral Library Search for TICs

Raw QC Data Package Section

- X — DFTPP and/or BFB mass spectra and mass listings
- X — RIC Chromatogram for Standards and MS/MSD Samples
- X — Quantitation Reports for Standards and MS/MSD
- O — List of Instrument Detection Limits
- X — Chain-of-Custody Records
- X — Sample Preparation and Analysis Run Logs

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

DATA VALIDATION SUMMARY

The data were reviewed following procedures and limits specified in the EPA OSWER directive, *Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan and Data Validation Procedures* (EPA/540/G-90/004, OSWER Directive 9360.4-01, dated April 1990).

Indicate with a YES or NO whether each item is acceptable:

1	Holding Times	Yes
2	GC/MS Tuning Criteria	Yes
3	Initial Calibrations	Yes
4	Continuing Calibrations	Yes
5	Laboratory Control Sample	Yes
6	Matrix Spike/Matrix Spike Duplicate	Not analyzed
7	Blanks and Background Samples	Yes
8	Surrogate Compounds	Yes
9	Internal Standards	Yes
10	Duplicate Analyses	Yes
11	Analyte Identification	Yes
12	Analyte Quantitation	Yes
13	Overall Assessment of Data	Yes
14	Usability of Data	Yes

Comments: None

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

1. HOLDING TIMES

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Samples were extracted and analyzed within required holding times except as noted under Comments. In addition, no problems were identified with regard to sample preservation or custody unless specified. For those sample fractions extracted or analyzed outside holding time requirements, the results have been qualified as estimated (J).

Air Samples:
EPA TO-14: 14 days (from collection) for analysis.

Comments: None.

2. GC/MS TUNING CRITERIA

__X__ BFB has been run for every 12 hours of sample analysis per instrument.

__X__ The BFB ion abundance criteria indicated in EPA/540/G-90/004 have been met for each instrument.

Comments: None

3. INITIAL CALIBRATIONS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Unless flagged below, a 5-point initial calibration was run. In addition, average Relative Response Factor (RRF), and percent relative Standard Deviation (%RSD) values were within control limits (average RRF >= 0.05; %RSD <= 30). For analytes which exceeded these control limits, associated data are qualified as estimated (J). In cases where the low calibration level was not detected, the detection limit is qualified (UJ). In cases where the analyte was not detected in the calibration, all associated data are rejected (R).

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

4. CONTINUING CALIBRATIONS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Unless flagged below, continuing calibrations were performed at the beginning and at the end of any group of samples and at least every 12 hours. In addition, Relative Response Factors (RRF), and Percent Difference (%D) values were within control limits (RRF >= 0.05; %D <= 30). For analytes which exceeded these control limits, associated data are qualified as estimated (J). In cases where the low calibration level was not detected, the detection limit is qualified (UJ). In cases where the analyte was not detected in the calibration, all associated data are rejected (R).

Comments: None.

5. LABORATORY CONTROL SAMPLE

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
_____ No Laboratory Control Samples Analyzed

Laboratory control sample recoveries are used for a qualitative indication of accuracy (bias) independent of matrix effects. Spike recovery limits of 70% to 130% are specified in the method.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

_____ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
__X__ No Matrix Spike/Matrix Spike Duplicates Analyzed

Matrix spike and matrix spike duplicate recoveries are used for a qualitative indication of accuracy (bias) due to matrix effects. The RPD between the recoveries is used for a qualitative indication of precision. Spike recovery limits of 80% to 120% are specified in EPA/540/G-90/004. For analytes which exceeded these control limits, associated detected results are qualified as estimated (J). At the discretion of the reviewer, other limits may be used only if justification can be provided.

Comments: None.

7. BLANKS AND BACKGROUND SAMPLES

__X__ Acceptable
_____ Practical Quantitation Limit Adjusted

The following blanks were analyzed:
__X__ Method (preparation) Blanks
_____ Field Blanks
_____ Instrument Blanks
_____ Equipment Blanks
__X__ Background Samples
_____ VOA Trip Blanks

Preparation (method) blanks were prepared for each batch of samples extracted. A preparation blank was analyzed after every continuing calibration standard, prior to sample analysis unless noted below. Any compound detected in the sample and also detected in any associated blank, must be qualified as non-detect (U) when the sample concentration is less than 5x the blank concentration.

Comments: Method blank and background sample results were nondetected.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

8. SURROGATE COMPOUNDS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Surrogate compound recoveries for samples analyzed within a sample group must be within the limits specified in the method. If the surrogate recovery is between 10% and the lower limit, the associated detected results are qualified as estimated (J) and the nondetected results are qualified as estimated (UJ). If the surrogate recovery is <10%, the associated detected results are qualified as estimated (J) and the nondetected results are rejected (R). If the surrogate recovery is above the upper limit, the associated detected results are qualified as estimated (J). Surrogate recoveries which exceeded these limits are noted below and the associated results are qualified on the attached sample report forms.

Comments: None.

9. INTERNAL STANDARDS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Internal Standard area counts for samples analyzed within a sample group must be within the range of 50% to 200% of the internal standard area for the continuing calibration. If the internal standard area is between 10% and 50% of this value, the associated detected results are qualified as estimated (J) and the nondetected results are qualified as estimated (UJ). If the internal standard area is <10% of the calibration area, both the detected and nondetected results are rejected (R). If the internal standard area is >200% of the calibration area, the associated detected results are qualified as estimated (J). Internal standards which exceeded these limits are noted below and the associated results are qualified on the attached sample report forms.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

10. DUPLICATE ANALYSES

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
_____ No Duplicates Analyzed

Type of duplicates analyzed:
_____ Field Duplicates
__X__ Laboratory Duplicates

Calculate the relative Percent Difference (RPD) between the members of duplicate pairs using the equation indicated below. Qualify the results as estimated (J) for any analyte whose RPD exceeds that specified in the Field Sampling Plan and Quality Assurance Project Plan (FSP/QAPP).

$$RPD = \frac{2(Value\ 1 - Value\ 2)}{Value\ 1 + Value\ 2} \times 100\%$$

Comments: None.

11. ANALYTE IDENTIFICATION

Evaluate the ion profiles for the sample analytes and compare them to the library ion profiles provided by the laboratory. Note any identifications which are not sufficiently supported by comparison to known ion profiles.

Comments:
Analyte identification is acceptable.

12. ANALYTE QUANTITATION

Confirm that analyte quantitation was performed correctly using the following formulas:

EPA TO14, air samples:

$$ppbv = \frac{(analyte\ area)(amount\ of\ internal\ standard,\ ng)}{(internal\ standard\ area)(RF)(volume\ of\ air,\ L)(dilution\ factor)}$$

Comments:
Analyte quantitation is acceptable.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

13. OVERALL ASSESSMENT OF DATA

On the basis of this review, the following determination has been made with regard to the overall data usability for the specified level.

__X__ **Acceptable**
_____ **Acceptable with Qualification**
_____ **Rejected**

Accepted data meet the minimum requirements for the following EPA data category:
_____ **ERS Screening**
_____ **Non-definitive with 10 % Conformation by Definitive Methodology**
_____ **Definitive, Comprehensive Statistical Error Determination was performed.**
__X__ **Definitive, Comprehensive Statistical Error Determination was not performed.**

Any qualifications to individual sample analysis results are detailed in the appropriate section above or appear under the comments section below. In cases where several QC criteria are out of specification, it may be appropriate to further qualify the data usability. The data reviewer must use professional judgment and express concerns and comments on the data validity for each specific data package.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	**Location: Oakland, CA**
Project TDD Number: 09-9712-0005	**PAN: 09-0256-DCST-XX**

14. USABILITY OF DATA

A. These data are considered usable for the following the data use objectives stated in the DC Metals Site Field Sampling Plan and Quality Assurance Project Plan (FSP/QAPP).

The following data use objectives were indicated in the FSP/QAPP:
1. To determine whether vinyl chloride is present at concentrations at or exceeding the site action levels set by the EPA.
2. To determine whether air exhaust systems should be installed.
3. To provide initial data necessary to begin a Hazard Ranking System for the site.

No results were qualified as rejected, estimated, or nondetected. The data are usable for the purposes indicated above.

B. These data meet quality objectives stated in the FSP/QAPP.
Data quality objectives are indicated in Section 3.5 of the FSP/QAPP. The data meet the quality criteria described in the SAP.

15. DOCUMENTATION OF LABORATORY CORRECTIVE ACTION

Problem: No problems requiring corrective action were observed.
Resolution: Not required.

Attached are copies of all data summary sheets with data qualifiers indicated, and a copy of the chain of custody for the samples.

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

9909168A

REGION 9
75 Hawthorne Street
San Francisco, California 94105

PROJ. NO.: 0256DCSTXY
PROJECT NAME: DC Metals
SAMPLERS: (Signature) C. Mclead, T. Hayes

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Vinyl Chloride by TO-14 SIM	TO-14 Fullscan	Initial Pressure	Start Time	End Time	Final Pressure	REMARKS
AA-59	9/13	1019		✓	Background B	1×6L	✓		27	1019	1619	Ø	
AA-52		1321		✓	1432 3rd St	"	✓		28	0910	1321	8	
CA-52		1321		✓	"	"	✓		26	0913	1321	Ø	
SG-52		1337		✓	"	"	✓		27.5	1326	1337	Ø	
AA-51		1355		✓	1428 3rd St	"	✓		30	0934	1355	8.5	
CA-51		1341		✓	"	"	✓		28.5	0941	1341	7	
SG-51		1353		✓	"	"	✓		30	1351	1353	Ø	
CA-552		1411		✓	326 Center St	"	✓		30	0934	1411	9.5	Data Summaries due 10 days
AA-50		1355		✓	1428 3rd St	"	✓		30	0934	1355	10	Fax to: C. Mclead 4159810801
CA-50		1341		✓	"	"	✓		29	0941	1341	9	
SG-50		1353		✓	"	"	✓		29	1351	1353	Ø	Data package & EDS to: (20 days)
~~SG-56~~	all	~~1519~~											C. Mclead, Ecology & Environment
AA SG-56		1519		✓	Equipment blank	1×6L		✓	30	1519	1519	Ø	350 Sansome St Ste 300
SG-57		1519		✓	Concurrent blank	1×6L		✓	29.5	1519	1519	Ø	San Francisco, CA 94104

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
C Mclead	9/13/99 1645	To Fedex			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
		9-14-99 ATL 8:55			
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				Custody Seal intact? Y N None	Temp. ambient

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

9 24378

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
AA-59

Lab Name:	Air Toxics Limited	Contract:	
Matrix:	AMBIENT AIR	SDG No.:	
Sample Vol:	500 mL		
% Moisture:	N/A		
Instrument ID:	msdt.i		

Lab Sample ID:	9909168A-01A
Lab File ID:	t091614
Date Received:	9/14/99
Date Analyzed:	9/16/99
Dilution Factor:	1.34

CAS #	Compound	Concentration (ppbv)	Q
75-01-4	Vinyl Chloride	0.013	U

FORM I-ATL

tol 10/20/99

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
AA-52

Lab Name: Air Toxics Limited
Matrix: AMBIENT AIR
Sample Vol: 500 mL
% Moisture: N/A
Instrument ID: msdt.i

Contract:
SDG No.:

Lab Sample ID: 9909168A-02A
Lab File ID: t091523
Date Received: 9/14/99
Date Analyzed: 9/16/99
Dilution Factor: 1.83

CAS #	Compound	Concentration (ppbv)	Q
75-01-4	Vinyl Chloride	0.018	U

10/29/99

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
CA-52

Lab Name: Air Toxics Limited
Matrix: AMBIENT AIR
Sample Vol: 500 mL
% Moisture: N/A
Instrument ID: msdt.i

Contract:
SDG No.:

Lab Sample ID: 9909168A-03A
Lab File ID: 1091524
Date Received: 9/14/99
Date Analyzed: 9/16/99
Dilution Factor: 1.34

CAS #	Compound	Concentration (ppbv)	Q
75-01-4	Vinyl Chloride	0.045	

Reporting limit: 0.013

10/20/99

FORM I-ATL

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
SG-52

Lab Name: Air Toxics Limited
Matrix: AMBIENT AIR
Sample Vol: 500 mL
% Moisture: N/A
Instrument ID: msdt.i

Contract:
SDG No.:

Lab Sample ID: 9909168A-04A
Lab File ID: t091525
Date Received: 9/14/99
Date Analyzed: 9/16/99
Dilution Factor: 1.34

CAS #	Compound	Concentration (ppbv)	Q
75-01-4	Vinyl Chloride	0.013	U

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
AA-51

Lab Name: Air Toxics Limited
Matrix: AMBIENT AIR
Sample Vol: 600 mL
% Moisture: N/A
Instrument ID: msdt.i

Contract:
SDG No.:

Lab Sample ID: 9809168A-05A
Lab File ID: t091526
Date Received: 9/14/99
Date Analyzed: 9/16/99
Dilution Factor: 1.75

CAS #	Compound	Concentration (ppbv)	Q
75-01-4	Vinyl Chloride	0.018	U

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
CA-51

Lab Name: Air Toxics Limited
Matrix: AMBIENT AIR
Sample Vol: 500 mL
% Moisture: N/A
Instrument ID: msdl.i

Contract:
SDG No.:

Lab Sample ID: 9909168A-06A
Lab File ID: 1091527
Date Received: 9/14/99
Date Analyzed: 9/16/99
Dilution Factor: 1.87

CAS #	Compound	Concentration (ppbv)	Q
75-01-4	Vinyl Chloride	0.020	

reporting limit: 0.019

FORM I-ATL

10/20/99

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
CA-552

Lab Name: Air Toxics Limited
Matrix: AMBIENT AIR
Sample Vol: 500 mL
% Moisture: N/A
Instrument ID: msdl.i

Contract:
SDG No.:

Lab Sample ID: 9909168A-08A
Lab File ID: t091609
Date Received: 9/14/99
Date Analyzed: 9/16/99
Dilution Factor: 1.75

CAS #	Compound	Concentration (ppbv)	Q
75-01-4	Vinyl Chloride	0.026	

reporting limit: 0.018

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
AA-50

Lab Name: Air Toxics Limited
Matrix: AMBIENT AIR
Sample Vol: 500 mL
% Moisture: N/A
Instrument ID: msdt.i

Contract:
SDG No.:

Lab Sample ID: 9909168A-09A
Lab File ID: 1091610
Date Received: 9/14/99
Date Analyzed: 9/16/99
Dilution Factor: 1.71

CAS #	Compound	Concentration (ppbv)	Q
75-01-4	Vinyl Chloride	0.017	U

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
CA-50

Lab Name: Air Toxics Limited
Matrix: AMBIENT AIR
Sample Vol: 500 mL
% Moisture: N/A
Instrument ID: msdt.i

Contract:
SDG No.:

Lab Sample ID: 9909168A-10A
Lab File ID: t091511
Date Received: 9/14/99
Date Analyzed: 9/16/99
Dilution Factor: 1.67

CAS #	Compound	Concentration (ppbv)	Q
75-01-4	Vinyl Chloride	0.020	

reporting limit: 0.019

FORM I-ATL

10/26/99

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
SG-50

Lab Name: Air Toxics Limited
Matrix: AMBIENT AIR
Sample Vol: 500 mL
% Moisture: N/A
Instrument ID: m6dt.i

Contract:
SDG No.:

Lab Sample ID: 9909168A-11A
Lab File ID: t091612
Date Received: 9/14/99
Date Analyzed: 9/16/99
Dilution Factor: 1.32

CAS #	Compound	Concentration (ppbv)	Q
75-01-4	Vinyl Chloride	0.014	

reporting limit: 0.013

Page 1 of 1

FORM I-ATL

DATA SUMMARIES

Sample Marix: Soil Gas
Analysis: Volatile Organics by EPA TO-14
Sample Date(s): 9/13/99
Laboratory: Air Toxics, Ltd.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	**Location: Oakland, CA**
Project TDD Number: 09-9712-0005	**PAN: 09-0256-DCST-XX**
Laboratory: Air Toxics, Ltd.	**Lab Project Number: 9909168B**
Sampling Dates: 9/13/99	**Sample Matrix: air**
Analytical Method: EPA TO14-VOCs	**Data Reviewer: Edward Long**

REVIEW AND APPROVAL:

Data Reviewer: Edward J. Long **Date:** 10/22/99

Technical QA Reviewer: [signature] **Date:** 10/21/99

Project Manager: [signature] **Date:** 10/21/99

SAMPLE IDENTIFICATION:

Sample No.	Sample I.D.	Laboratory I.D.
1	SG-56	9909168B-12A
2	SG-57	9909168B-13A
3	SG-17	9909168B-14A
4	SG-25	9909168B-15A
5	SG-31	9909168B-16A

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

DATA PACKAGE COMPLETENESS CHECKLIST:

Checklist Code:

X	Included: no problems
*	Included: problems noted in review
O	Not Included and/or Not Available
NR	Not Required
RS	Provided As Re-submission

Case Narrative:

X	Case Narrative present

Quality Control Summary Package:

X	Data Summary sheets
O	Matrix Spike/Spike Duplicate Recoveries
*	Laboratory Control Sample Recoveries
*	Method Blank Summaries
X	GC/MS Tuning and Mass Calibration
X	Initial Calibration Data
X	Continuing Calibration Data
X	Surrogate Compound Recovery Summary
X	Internal Standard Area Summary

Sample and Blank Data Package Section

X	Reconstructed Ion Current (RIC) Chromatogram
X	Quantitation Reports
X	Raw and Enhanced Mass Spectra
X	Reference Mass Spectra for Target Compounds
NR	Mass Spectral Library Search for TICs

Raw QC Data Package Section

X	DFTPP and/or BFB mass spectra and mass listings
X	RIC Chromatogram for Standards and MS/MSD Samples
X	Quantitation Reports for Standards and MS/MSD
O	List of Instrument Detection Limits
X	Chain-of-Custody Records
X	Sample Preparation and Analysis Run Logs

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

DATA VALIDATION SUMMARY

The data were reviewed following procedures and limits specified in the EPA OSWER directive, *Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan and Data Validation Procedures* (EPA/540/G-90/004, OSWER Directive 9360.4-01, dated April 1990).

Indicate with a YES or NO whether each item is acceptable:

1	Holding Times	Yes
2	GC/MS Tuning Criteria	Yes
3	Initial Calibrations	Yes
4	Continuing Calibrations	Yes
5	Laboratory Control Sample	Yes
6	Matrix Spike/Matrix Spike Duplicate	Not analyzed
7	Blanks and Background Samples	Yes
8	Surrogate Compounds	Yes
9	Internal Standards	Yes
10	Duplicate Analyses	Yes
11	Analyte Identification	Yes
12	Analyte Quantitation	Yes
13	Overall Assessment of Data	Yes
14	Usability of Data	Yes

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

1. HOLDING TIMES

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Samples were extracted and analyzed within required holding times except as noted under Comments. In addition, no problems were identified with regard to sample preservation or custody unless specified. For those sample fractions extracted or analyzed outside holding time requirements, the results have been qualified as estimated (J).

Air Samples:
EPA TO-14: 14 days (from collection) for analysis.

Comments: None.

2. GC/MS TUNING CRITERIA

__X__ BFB has been run for every 12 hours of sample analysis per instrument.

__X__ The BFB ion abundance criteria indicated in EPA/540/G-90/004 have been met for each instrument.

Comments: None.

3. INITIAL CALIBRATIONS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Unless flagged below, a 5-point initial calibration was run. In addition, average Relative Response Factor (RRF), and percent relative Standard Deviation (%RSD) values were within control limits (average RRF >= 0.05; %RSD <= 30). For analytes which exceeded these control limits, associated data are qualified as estimated (J). In cases where the low calibration level was not detected, the detection limit is qualified (UJ). In cases where the analyte was not detected in the calibration, all associated data are rejected (R).

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

4. CONTINUING CALIBRATIONS

__X__ **Acceptable**
_____ **Acceptable with qualification**
_____ **Unacceptable**

Unless flagged below, continuing calibrations were performed at the beginning and at the end of any group of samples and at least every 12 hours. In addition, Relative Response Factors (RRF), and Percent Difference (%D) values were within control limits (RRF >= 0.05; %D <= 30). For analytes which exceeded these control limits, associated data are qualified as estimated (J). In cases where the low calibration level was not detected, the detection limit is qualified (UJ). In cases where the analyte was not detected in the calibration, all associated data are rejected (R).

Comments: None.

5. LABORATORY CONTROL SAMPLE

__X__ **Acceptable**
_____ **Acceptable with qualification**
_____ **Unacceptable**
_____ **No Laboratory Control Samples Analyzed**

Laboratory control sample recoveries are used for a qualitative indication of accuracy (bias) independent of matrix effects. Spike recovery limits of 70% to 130% are specified in the method.

Comments: High recoveries were observed for hexachlorobutadiene and 1,2,4-trichlorobenzene. The recoveries were 147% and 160%, respectively. Because the associated sample results were nondetected, no data were qualified.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

_____ **Acceptable**
_____ **Acceptable with qualification**
_____ **Unacceptable**
__X__ **No Matrix Spike/Matrix Spike Duplicates Analyzed**

Matrix spike and matrix spike duplicate recoveries are used for a qualitative indication of accuracy (bias) due to matrix effects. The RPD between the recoveries is used for a qualitative indication of precision. Spike recovery limits of 80% to 120% are specified in EPA/540/G-90/004. For analytes which exceeded these control limits, associated detected results are qualified as estimated (J). At the discretion of the reviewer, other limits may be used only if justification can be provided.

Comments: None.

7. BLANKS AND BACKGROUND SAMPLES

__X__ **Acceptable**
__X__ **Practical Quantitation Limit Adjusted**

The following blanks were analyzed:
__X__ **Method (preparation) Blanks**
_____ **Field Blanks**
_____ **Instrument Blanks**
__X__ **Equipment Blanks**
_____ **Background Samples**
_____ **VOA Trip Blanks**

Preparation (method) blanks were prepared for each batch of samples extracted. A preparation blank was analyzed after every continuing calibration standard, prior to sample analysis unless noted below. Any compound detected in the sample and also detected in any associated blank, must be qualified as non-detect (U) when the sample concentration is less than 5x the blank concentration.

Comments: Method blank results were nondetected. Toluene, xylenes, acetone, and ethanol were detected between one and two times the practical quantitation limit (PQL) in the equipment blank (SG-56). Based on these results, four sample results were qualified as nondetected (U). Detected results were not qualified if they were greater than five times the concentration observed in the equipment blank.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

8. SURROGATE COMPOUNDS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Surrogate compound recoveries for samples analyzed within a sample group must be within the limits specified in the method. If the surrogate recovery is between 10% and the lower limit, the associated detected results are qualified as estimated (J) and the nondetected results are qualified as estimated (UJ). If the surrogate recovery is <10%, the associated detected results are qualified as estimated (J) and the nondetected results are rejected (R). If the surrogate recovery is above the upper limit, the associated detected results are qualified as estimated (J). Surrogate recoveries which exceeded these limits are noted below and the associated results are qualified on the attached sample report forms.

Comments: None.

9. INTERNAL STANDARDS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Internal Standard area counts for samples analyzed within a sample group must be within the range of 50% to 200% of the internal standard area for the continuing calibration. If the internal standard area is between 10% and 50% of this value, the associated detected results are qualified as estimated (J) and the nondetected results are qualified as estimated (UJ). If the internal standard area is <10% of the calibration area, both the detected and nondetected results are rejected (R). If the internal standard area is >200% of the calibration area, the associated detected results are qualified as estimated (J). Internal standards which exceeded these limits are noted below and the associated results are qualified on the attached sample report forms.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

10. DUPLICATE ANALYSES

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
_____ No Duplicates Analyzed

Type of duplicates analyzed:
_____ Field Duplicates
__X__ Laboratory Duplicates

Calculate the relative Percent Difference (RPD) between the members of duplicate pairs using the equation indicated below. Qualify the results as estimated (J) for any analyte whose RPD exceeds that specified in the Field Sampling Plan and Quality Assurance Project Plan (FSP/QAPP).

$$RPD = \frac{2(Value\ 1 - Value\ 2)}{Value\ 1 + Value\ 2} \times 100\%$$

Comments: None.

11. ANALYTE IDENTIFICATION

Evaluate the ion profiles for the sample analytes and compare them to the library ion profiles provided by the laboratory. Note any identifications which are not sufficiently supported by comparison to known ion profiles.

Comments:
Analyte identification is acceptable.

12. ANALYTE QUANTITATION

Confirm that analyte quantitation was performed correctly using the following formulas:

EPA TO14, air samples:

$$ppbv = \frac{(analyte\ area)(amount\ of\ internal\ standard,\ ng)}{(internal\ standard\ area)(RF)(volume\ of\ air,\ L)(dilution\ factor)}$$

Comments:
Analyte quantitation is acceptable.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

13. OVERALL ASSESSMENT OF DATA

On the basis of this review, the following determination has been made with regard to the overall data usability for the specified level.

_____ **Acceptable**
__X__ **Acceptable with Qualification**
_____ **Rejected**

Accepted data meet the minimum requirements for the following EPA data category:
_____ **ERS Screening**
_____ **Non-definitive with 10 % Conformation by Definitive Methodology**
_____ **Definitive, Comprehensive Statistical Error Determination was performed.**
__X__ **Definitive, Comprehensive Statistical Error Determination was not performed.**

Any qualifications to individual sample analysis results are detailed in the appropriate section above or appear under the comments section below. In cases where several QC criteria are out of specification, it may be appropriate to further qualify the data usability. The data reviewer must use professional judgment and express concerns and comments on the data validity for each specific data package.

Comments: Four results were qualified as nondetected due to equipment blank contamination. As a result the practical quantitation limits were raised for these qualified results.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	**Location: Oakland, CA**
Project TDD Number: 09-9712-0005	**PAN: 09-0256-DCST-XX**

14. USABILITY OF DATA

A. These data are considered usable for the following the data use objectives stated in the DC Metals Site Field Sampling Plan and Quality Assurance Project Plan (FSP/QAPP).

The following data use objectives were indicated in the FSP/QAPP:
1. To determine whether vinyl chloride is present at concentrations at or exceeding the site action levels set by the EPA.
2. To determine whether air exhaust systems should be installed.
3. To provide initial data necessary to begin a Hazard Ranking System for the site.

Four results were qualified as nondetected due to low-level equipment blank contamination. No results were qualified as rejected or estimated. The data are usable for the purposes indicated above.

B. These data meet quality objectives stated in the FSP/QAPP.
Data quality objectives are indicated in Section 3.5 of the FSP/QAPP. The data meet the quality criteria described in the SAP.

15. DOCUMENTATION OF LABORATORY CORRECTIVE ACTION

Problem: No problems requiring corrective action were observed.
Resolution: Not required.

Attached are copies of all data summary sheets with data qualifiers indicated, and a copy of the chain of custody for the samples.

Office of Enforcement

CHAIN OF CUSTODY RECORD

San Francisco, California 94105

PROJ. NO.: 0256DCSTXY

PROJECT NAME: DC Metals

SAMPLERS: (Signature) C. Mchead, T. Hayes

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Vinyl Chloride by TO-14 SIM	TO-14 Fullscan	Initial Pressure	Start Time	End Time	Final Pressure	REMARKS
AA-59	9/13	1019		✓	Background B	1x6L	✓		27	1019	1019	Ø	
AA-52		1321		✓	1432 3rd St	"	✓		28	0910	1321	8	
CA-52		1321		✓	"	"	✓		26	0913	1321	Ø	
SG-52		1337		✓	"	"	✓		29.5	1336	1337	Ø	
AA-51		1355		✓	1428 3rd St	"	✓		30	0934	1355	8.5	
CA-51		1341		✓	"	"	✓		28.5	0941	1341	7	
SG-51		1353		✓	"	"	✓		30	1351	1353	Ø	
CA-552		1411		✓	326 Canton St	"	✓		30	0954	1411	9.5	Data Summaries due 10 days
AA-50		1355		✓	1428 3rd St	"	✓		30	0934	1355	10	Fax to: C. Mchead 4159810801
CA-50		1341		✓	"	"	✓		29	0941	1341	9	
SG-50		1353		✓	"	"	✓		29	1351	1353	Ø	Data package & EDS to: (20 days)
~~SG-56~~	~~all~~	~~1519~~											C. Mchead, Ecology & Environment
AA SG-56		1519		✓	Equipment blank	1x6L		✓	30	1519	1519	Ø	350 Sansome St Ste 300
SG-57		1519		✓	Concurrent blank	1x6L		✓	29.5	1519	1519	Ø	San Francisco, CA 94104

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
C Mchead	9/13/99 1645	To Fedex			
Relinquished by: (Signature)	Date / Time	Received by: (Signature) 9-14-99	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
		ATL 8:55			
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				Custody Seal intact? Y N None	Temp. ambient

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

9 21378

Office of Enforcement

CHAIN OF CUSTODY RECORD

San Francisco, California 94105

PROJ. NO.	PROJECT NAME
20156 DCST XX	D.C. Metals

SAMPLERS: *(Signature)*
C. McLeod, T. Hayes

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TO-14 Full Scan	Initial Pressure	Start Time	End Time	Final Pressure	REMARKS
												4/15/99 #1
A SG-17	9/13	1601			Permanent Pt 1	1 x 6L	✓	29.5	1600	1601	Ø	1.6
A SG-25	"	1609			Permanent Pt 2	"	✓	30	1608	1609	Ø	6.1
A SG-31	"	1621			Permanent Pt 3	"	✓	29	1612	1621	Ø	1.0

Data summary due - 10 days
FAX to: C. McLeod 415 981-0801

Data package & EDS - 20 days
Mail to: C. McLeod
350 Sansome Ste 300
San Francisco, CA 94104

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
C McLeod	9/13/99 1645	To Fedex			
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
		9-14-99 0:55			
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks	
				Custody Seal intact? Y N None Temperature	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

9 24379

000021

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
SG-56

Lab Name: Air Toxics Limited
Matrix: AIR
Sample Vol: 200 ml
% Moisture: NA
Instrument ID: msdl.i

Contract:
SDG No.:

Lab Sample ID: 9909168B-12A
Lab File ID: I091714
Date Received: 9/14/99
Date Analyzed: 9/17/99
Dilution Factor: 1.21

CAS #	Compound	Concentration (ppbv)	Q
75-71-8	Freon 12	0.61	U
76-14-2	Freon 114	0.61	U
74-87-3	Chloromethane	0.61	U
75-01-4	Vinyl Chloride	0.61	U
74-83-9	Bromomethane	0.61	U
75-00-3	Chloroethane	0.61	U
75-69-4	Freon 11	0.61	U
75-35-4	1,1-Dichloroethene	0.61	U
76-13-1	Freon 113	0.61	U
75-09-2	Methylene Chloride	0.61	U
75-34-3	1,1-Dichloroethane	0.61	U
156-59-2	cis-1,2-Dichloroethene	0.61	U
67-66-3	Chloroform	0.61	U
71-55-6	1,1,1-Trichloroethane	0.61	U
56-23-5	Carbon Tetrachloride	0.61	U
71-43-2	Benzene	0.61	U
107-06-2	1,2-Dichloroethane	0.61	U
79-01-6	Trichloroethene	0.61	U
78-87-5	1,2-Dichloropropane	0.61	U
10061-01-5	cis-1,3-Dichloropropene	0.61	U
108-88-3	Toluene	0.65	
10061-02-6	trans-1,3-Dichloropropene	0.61	U
79-00-5	1,1,2-Trichloroethane	0.61	U
127-18-4	Tetrachloroethene	0.61	U
106-93-4	Ethylene Dibromide	0.61	U
108-90-7	Chlorobenzene	0.61	U
100-41-4	Ethyl Benzene	0.61	U
108-38-3	m,p-Xylene	0.73	
95-47-6	o-Xylene	0.61	U
100-42-5	Styrene	0.61	U
79-34-5	1,1,2,2-Tetrachloroethane	0.61	U
108-67-8	1,3,5-Trimethylbenzene	0.61	U
95-63-6	1,2,4-Trimethylbenzene	0.61	U
541-73-1	1,3-Dichlorobenzene	0.61	U
106-46-7	1,4-Dichlorobenzene	0.61	U
100-44-7	Chlorotoluene	0.61	U
95-50-1	1,2-Dichlorobenzene	0.61	U
120-82-1	1,2,4-Trichlorobenzene	0.61	U
87-68-3	Hexachlorobutadiene	0.61	U
115-07-1	Propylene	2.4	U

FORM I-ATL

10/24/99

LEVEL-IV VALIDATABLE

SAMPLE NO.
SG-56

EPA Method TO-14

Lab Name: Air Toxics Limited
Matrix: AIR
Sample Vol: 200 ml
% Moisture: NA
Instrument ID: msdl.i

Contract:
SDG No.:

Lab Sample ID: 9909168B-12A
Lab File ID: I091714
Date Received: 9/14/99
Date Analyzed: 9/17/99
Dilution Factor: 1.21

CAS #	Compound	Concentration (ppbv)	Q
106-99-0	1,3-Butadiene	2.4	U
67-64-1	Acetone	4.8	
75-15-0	Carbon Disulfide	2.4	U
67-63-0	2-Propanol	2.4	U
156-60-5	trans-1,2-Dichloroethene	2.4	U
108-05-4	Vinyl Acetate	2.4	U
78-93-3	2-Butanone (Methyl Ethyl Ketone)	2.4	U
110-54-3	Hexane	2.4	U
109-99-9	Tetrahydrofuran	2.4	U
110-82-7	Cyclohexane	2.4	U
123-91-1	1,4-Dioxane	2.4	U
75-27-4	Bromodichloromethane	2.4	U
108-10-1	4-Methyl-2-pentanone	2.4	U
591-78-6	2-Hexanone	2.4	U
124-48-1	Dibromochloromethane	2.4	U
75-25-2	Bromoform	2.4	U
622-96-8	4-Ethyltoluene	2.4	U
64-17-5	Ethanol	3.4	
1634-04-4	Methyl tert-Butyl Ether	2.4	U
142-82-5	Heptane	2.4	U

EOL 10/22/99

FORM I-ATL

000036

LEVEL-IV VALIDATABLE

SAMPLE NO.
SG-57

EPA Method TO-14

Lab Name: Air Toxics Limited
Matrix: AIR
Sample Vol: 200 ml
% Moisture: NA
Instrument ID: msdc.i

Contract:
SDG No.:

Lab Sample ID: 9909168B-13A
Lab File ID: c092013
Date Received: 9/14/99
Date Analyzed: 9/20/99
Dilution Factor: 1.34

CAS #	Compound	Concentration (ppbv)	Q
75-71-8	Freon 12	0.67	U
76-14-2	Freon 114	0.67	U
74-87-3	Chloromethane	0.67	U
75-01-4	Vinyl Chloride	0.67	U
74-83-9	Bromomethane	0.67	U
75-00-3	Chloroethane	0.67	U
75-69-4	Freon 11	0.67	U
75-35-4	1,1-Dichloroethene	0.67	U
76-13-1	Freon 113	0.67	U
75-09-2	Methylene Chloride	0.67	U
75-34-3	1,1-Dichloroethane	0.67	U
156-59-2	cis-1,2-Dichloroethene	0.67	U
67-66-3	Chloroform	0.67	U
71-55-6	1,1,1-Trichloroethane	0.67	U
56-23-5	Carbon Tetrachloride	0.67	U
71-43-2	Benzene	0.67	U
107-06-2	1,2-Dichloroethane	0.67	U
79-01-6	Trichloroethene	0.67	U
78-87-5	1,2-Dichloropropane	0.67	U
10061-01-5	cis-1,3-Dichloropropene	0.67	U
108-88-3	Toluene	0.67	U
10061-02-6	trans-1,3-Dichloropropene	0.67	U
79-00-5	1,1,2-Trichloroethane	0.67	U
127-18-4	Tetrachloroethene	0.67	U
106-93-4	Ethylene Dibromide	0.67	U
108-90-7	Chlorobenzene	0.67	U
100-41-4	Ethyl Benzene	0.67	U
108-38-3	m,p-Xylene	0.67	U
95-47-6	o-Xylene	0.67	U
100-42-5	Styrene	0.67	U
79-34-5	1,1,2,2-Tetrachloroethane	0.67	U
108-67-8	1,3,5-Trimethylbenzene	0.67	U
95-63-6	1,2,4-Trimethylbenzene	0.67	U
541-73-1	1,3-Dichlorobenzene	0.67	U
106-46-7	1,4-Dichlorobenzene	0.67	U
100-44-7	Chlorotoluene	0.67	U
95-50-1	1,2-Dichlorobenzene	0.67	U
120-82-1	1,2,4-Trichlorobenzene	0.67	U
87-68-3	Hexachlorobutadiene	0.67	U
115-07-1	Propylene	2.7	U

FORM I-ATL

10/24/99

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
SG-57

Lab Name: Air Toxics Limited
Matrix: AIR
Sample Vol: 200 ml
% Moisture: NA
Instrument ID: msdc.i

Contract:
SDG No.:

Lab Sample ID: 9909168B-13A
Lab File ID: c092013
Date Received: 9/14/99
Date Analyzed: 9/20/99
Dilution Factor: 1.34

CAS #	Compound	Concentration (ppbv)	Q
106-99-0	1,3-Butadiene	2.7	U
67-64-1	Acetone	3.7	
75-15-0	Carbon Disulfide	2.7	U
67-63-0	2-Propanol	2.7	U
156-60-5	trans-1,2-Dichloroethene	2.7	U
108-05-4	Vinyl Acetate	2.7	U
78-93-3	2-Butanone (Methyl Ethyl Ketone)	2.7	U
110-54-3	Hexane	2.7	U
109-99-9	Tetrahydrofuran	2.7	U
110-82-7	Cyclohexane	2.7	U
123-91-1	1,4-Dioxane	2.7	U
75-27-4	Bromodichloromethane	2.7	U
108-10-1	4-Methyl-2-pentanone	2.7	U
591-78-6	2-Hexanone	2.7	U
124-48-1	Dibromochloromethane	2.7	U
75-25-2	Bromoform	2.7	U
622-96-8	4-Ethyltoluene	2.7	U
64-17-5	Ethanol	2.7	U
1634-04-4	Methyl tert-Butyl Ether	2.7	U
142-82-5	Heptane	2.7	U

10/22/99

FORM I-ATL

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
SG-7744

Lab Name: Air Toxics Limited
Matrix: AIR
Sample Vol: 5.0 ml
% Moisture: NA
Instrument ID: msdc.i

Contract:
SDG No.:

Lab Sample ID: 9909168B-14A
Lab File ID: c092107
Date Received: 9/14/99
Date Analyzed: 9/21/99
Dilution Factor: 55.6

CAS #	Compound	Concentration (ppbv)	Q
75-71-8	Freon 12	28	U
76-14-2	Freon 114	28	U
74-87-3	Chloromethane	28	U
75-01-4	Vinyl Chloride	96	
74-83-9	Bromomethane	28	U
75-00-3	Chloroethane	280	
75-69-4	Freon 11	28	U
75-35-4	1,1-Dichloroethene	28	U
76-13-1	Freon 113	28	U
75-09-2	Methylene Chloride	28	U
75-34-3	1,1-Dichloroethane	48	
156-59-2	cis-1,2-Dichloroethene	28	U
67-66-3	Chloroform	28	U
71-55-6	1,1,1-Trichloroethane	28	U
56-23-5	Carbon Tetrachloride	28	U
71-43-2	Benzene	160	
107-06-2	1,2-Dichloroethane	28	U
79-01-6	Trichloroethene	28	U
78-87-5	1,2-Dichloropropane	28	U
10061-01-5	cis-1,3-Dichloropropene	28	U
108-88-3	Toluene	28	U
10061-02-6	trans-1,3-Dichloropropene	28	U
79-00-5	1,1,2-Trichloroethane	28	U
127-18-4	Tetrachloroethene	28	U
106-93-4	Ethylene Dibromide	28	U
108-90-7	Chlorobenzene	28	U
100-41-4	Ethyl Benzene	28	U
108-38-3	m,p-Xylene	160	
95-47-6	o-Xylene	28	U
100-42-5	Styrene	28	U
79-34-5	1,1,2,2-Tetrachloroethane	28	U
108-67-8	1,3,5-Trimethylbenzene	28	U
95-63-6	1,2,4-Trimethylbenzene	28	U
541-73-1	1,3-Dichlorobenzene	28	U
106-46-7	1,4-Dichlorobenzene	28	U
100-44-7	Chlorotoluene	28	U
95-50-1	1,2-Dichlorobenzene	28	U
120-82-1	1,2,4-Trichlorobenzene	28	U
87-68-3	Hexachlorobutadiene	28	U
115-07-1	Propylene	110	U

FORM I-ATL

10/22/99

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
09W145

Lab Name: Air Toxics Limited
Matrix: AIR
Sample Vol: 5.0 ml
% Moisture: NA
Instrument ID: msdc.i

Contract:
SDG No.:

Lab Sample ID: 9909168B-14A
Lab File ID: c092107
Date Received: 9/14/99
Date Analyzed: 9/21/99
Dilution Factor: 55.6

CAS #	Compound	Concentration (ppbv)	Q
106-99-0	1,3-Butadiene	110	U
67-64-1	Acetone	110	U
75-15-0	Carbon Disulfide	110	U
67-63-0	2-Propanol	110	U
156-60-5	trans-1,2-Dichloroethene	110	U
108-05-4	Vinyl Acetate	110	U
78-93-3	2-Butanone (Methyl Ethyl Ketone)	110	U
110-54-3	Hexane	220	
109-99-9	Tetrahydrofuran	110	U
110-82-7	Cyclohexane	200	
123-91-1	1,4-Dioxane	110	U
75-27-4	Bromodichloromethane	110	U
108-10-1	4-Methyl-2-pentanone	110	U
591-78-6	2-Hexanone	110	U
124-48-1	Dibromochloromethane	110	U
75-25-2	Bromoform	110	U
622-96-8	4-Ethyltoluene	110	U
64-17-5	Ethanol	110	U
1634-04-4	Methyl tert-Butyl Ether	110	U
142-82-5	Heptane	1700	

FORM I-ATL

10/22/99

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
SG-25

Lab Name: Air Toxics Limited
Matrix: AIR
Sample Vol: 50 ml
% Moisture: NA
Instrument ID: msdc.i

Contract:
SDG No.:

Lab Sample ID: 9909168B-15A
Lab File ID: c092112
Date Received: 9/14/99
Date Analyzed: 9/21/99
Dilution Factor: 5.36

CAS #	Compound	Concentration (ppbv)	Q
75-71-8	Freon 12	9.7	
76-14-2	Freon 114	2.7	U
74-87-3	Chloromethane	2.7	U
75-01-4	Vinyl Chloride	71	
74-83-9	Bromomethane	2.7	U
75-00-3	Chloroethane	590	
75-69-4	Freon 11	2.7	U
75-35-4	1,1-Dichloroethene	2.7	U
76-13-1	Freon 113	180	
75-09-2	Methylene Chloride	15	
75-34-3	1,1-Dichloroethane	150	
156-59-2	cis-1,2-Dichloroethene	13	
67-66-3	Chloroform	2.7	U
71-55-6	1,1,1-Trichloroethane	2.7	U
56-23-5	Carbon Tetrachloride	2.7	U
71-43-2	Benzene	44	
107-06-2	1,2-Dichloroethane	2.7	U
79-01-6	Trichloroethene	5.7	
78-87-5	1,2-Dichloropropane	2.7	U
10061-01-5	cis-1,3-Dichloropropene	2.7	U
108-88-3	Toluene	8.4	
10061-02-6	trans-1,3-Dichloropropene	2.7	U
79-00-5	1,1,2-Trichloroethane	2.7	U
127-18-4	Tetrachloroethene	2.7	U
106-93-4	Ethylene Dibromide	2.7	U
108-90-7	Chlorobenzene	2.7	U
100-41-4	Ethyl Benzene	2.7	U
108-38-3	m,p-Xylene	2.7	U
95-47-6	o-Xylene	4.4	
100-42-5	Styrene	2.7	U
79-34-5	1,1,2,2-Tetrachloroethane	2.7	U
108-67-8	1,3,5-Trimethylbenzene	2.7	U
95-63-6	1,2,4-Trimethylbenzene	5.2	
541-73-1	1,3-Dichlorobenzene	2.7	U
106-46-7	1,4-Dichlorobenzene	2.7	U
100-44-7	Chlorotoluene	2.7	U
95-50-1	1,2-Dichlorobenzene	2.7	U
120-82-1	1,2,4-Trichlorobenzene	2.7	U
87-68-3	Hexachlorobutadiene	2.7	U
115-07-1	Propylene	11	U

FORM I-ATL

10/22/99

000069

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
SG-25

Lab Name: Air Toxics Limited
Matrix: AIR
Sample Vol: 50 ml
% Moisture: NA
Instrument ID: msdc.i

Contract:
SDG No.:

Lab Sample ID: 9909168B-15A
Lab File ID: c092112
Date Received: 9/14/99
Date Analyzed: 9/21/99
Dilution Factor: 5.36

CAS #	Compound	Concentration (ppbv)	Q
106-99-0	1,3-Butadiene	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
67-63-0	2-Propanol	11	U
156-60-5	trans-1,2-Dichloroethene	11	U
108-05-4	Vinyl Acetate	11	U
78-93-3	2-Butanone (Methyl Ethyl Ketone)	11	U
110-54-3	Hexane	860	
109-99-9	Tetrahydrofuran	11	U
110-82-7	Cyclohexane	180	
123-91-1	1,4-Dioxane	11	U
75-27-4	Bromodichloromethane	11	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
124-48-1	Dibromochloromethane	11	U
75-25-2	Bromoform	11	U
622-96-8	4-Ethyltoluene	11	U
64-17-5	Ethanol	21	
1634-04-4	Methyl tert-Butyl Ether	11	U
142-82-5	Heptane	190	

FORM I-ATL

10/22/99

000105

LEVEL-IV VALIDATABLE

EPA Method TO-14

SAMPLE NO.
SG-31

Lab Name: Air Toxics Limited
Matrix: AIR
Sample Vol: 200 ml
% Moisture: NA
Instrument ID: msdt.i

Contract:
SDG No.:

Lab Sample ID: 9909168B-16A
Lab File ID: t092615
Date Received: 9/14/99
Date Analyzed: 9/26/99
Dilution Factor: 1.39

CAS #	Compound	Concentration (ppbv)	Q
75-71-8	Freon 12	0.70	U
76-14-2	Freon 114	0.70	U
74-87-3	Chloromethane	0.78	
75-01-4	Vinyl Chloride	0.70	U
74-83-9	Bromomethane	0.70	U
75-00-3	Chloroethane	0.70	U
75-69-4	Freon 11	0.70	U
75-35-4	1,1-Dichloroethene	0.70	U
76-13-1	Freon 113	0.70	U
75-09-2	Methylene Chloride	0.70	U
75-34-3	1,1-Dichloroethane	0.70	U
156-59-2	cis-1,2-Dichloroethene	0.70	U
67-66-3	Chloroform	0.70	U
71-55-6	1,1,1-Trichloroethane	0.70	U
56-23-5	Carbon Tetrachloride	0.70	U
71-43-2	Benzene	0.70	U
107-06-2	1,2-Dichloroethane	0.70	U
79-01-6	Trichloroethene	0.70	U
78-87-5	1,2-Dichloropropane	0.70	U
10061-01-5	cis-1,3-Dichloropropene	0.70	U
108-88-3	Toluene	1.2	
10061-02-6	trans-1,3-Dichloropropene	0.70	U
79-00-5	1,1,2-Trichloroethane	0.70	U
127-18-4	Tetrachloroethene	0.70	U
106-93-4	Ethylene Dibromide	0.70	U
108-90-7	Chlorobenzene	0.70	U
100-41-4	Ethyl Benzene	0.70	U
108-38-3	m,p-Xylene	0.70	U
95-47-6	o-Xylene	0.70	U
100-42-5	Styrene	0.70	U
79-34-5	1,1,2,2-Tetrachloroethane	0.70	U
108-67-8	1,3,5-Trimethylbenzene	0.70	U
95-63-6	1,2,4-Trimethylbenzene	0.70	U
541-73-1	1,3-Dichlorobenzene	0.70	U
106-46-7	1,4-Dichlorobenzene	0.70	U
100-44-7	Chlorotoluene	0.70	U
95-50-1	1,2-Dichlorobenzene	0.70	U
120-82-1	1,2,4-Trichlorobenzene	0.70	U
87-68-3	Hexachlorobutadiene	0.70	U
115-07-1	Propylene	2.8	U

FORM I-ATL

10/22/99

LEVEL-IV VALIDATABLE

SAMPLE NO.
SG-31

EPA Method TO-14

Lab Name: Air Toxics Limited
Matrix: AIR
Sample Vol: 200 ml
% Moisture: NA
Instrument ID: msdt.i

Contract:
SDG No.:

Lab Sample ID: 9909168B-16A
Lab File ID: t092615
Date Received: 9/14/99
Date Analyzed: 9/26/99
Dilution Factor: 1.39

CAS #	Compound	Concentration (ppbv)	Q
106-99-0	1,3-Butadiene	2.8	U
67-64-1	Acetone	9.9	
75-15-0	Carbon Disulfide	2.8	U
67-63-0	2-Propanol	2.8	U
156-60-5	trans-1,2-Dichloroethene	2.8	U
108-05-4	Vinyl Acetate	2.8	U
78-93-3	2-Butanone (Methyl Ethyl Ketone)	2.8	U
110-54-3	Hexane	2.8	U
109-99-9	Tetrahydrofuran	2.8	U
110-82-7	Cyclohexane	2.8	U
123-91-1	1,4-Dioxane	11	
75-27-4	Bromodichloromethane	2.8	U
108-10-1	4-Methyl-2-pentanone	2.8	U
591-78-6	2-Hexanone	2.8	U
124-48-1	Dibromochloromethane	2.8	U
75-25-2	Bromoform	2.8	U
622-96-8	4-Ethyltoluene	2.8	U
64-17-5	Ethanol	5.9	
1634-04-4	Methyl tert-Butyl Ether	2.8	U
142-82-5	Heptane	2.8	U

FORM I-ATL

10/22/99

DATA SUMMARIES

Sample Marix: Soil
Analysis: Volatile Organic Compounds by 8260B
Sample Date(s): 9/9-16/99
Laboratory: Zymax Envirotechnology

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX
Laboratory: Zymax	Lab Project Number: 17769/17794/17812/17813/17825
Sampling Dates: 9/9/99 - 9/16/99	Sample Matrix: soil
Analytical Method: EPA 8260B-VOCs	Data Reviewer: Edward Long

REVIEW AND APPROVAL:

Data Reviewer: Edward J. Long Date: 10/28/99

Technical QA Reviewer: [signature] Date: 10/29/99

Project Manager: [signature] Date: _____

SAMPLE IDENTIFICATION:

Sample No.	Sample I.D.	Laboratory I.D.
1	S-69-1	17769-1
2	S-69-2	17769-2
3	S-69-3	17769-3
4	S-73-1	17769-4
5	S-76-1	17769-5
6	S-79-1	17769-6
7	S-79-2	17769-7
8	S-79-3	17769-8
9	S-78-1	17794-1
10	S-78-2	17794-2
11	S-78-3	17794-3
12	S-75-1	17794-4
13	S-72-1	17794-5
14	S-72-2	17794-6
15	S-72-3	17794-7
16	S-68-1	17794-8
17	S-64-1	17794-9
18	S-64-2	17794-10
19	S-64-3	17794-11
20	S-65-1	17794-12

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

21	S-65-2	17794-13
22	S-63-1	17794-14
23	S-63-2	17794-15
24	S-63-3	17794-16
25	S-84	17812-1
26	S-84D	17812-2
27	S-60-1	17813-1
28	S-60-2	17813-2
29	S-60-3	17813-3
30	S-61-1	17813-4
31	S-61-2	17813-5
32	S-66-1	17813-6
33	S-66-2	17813-7
34	S-66-2D	17813-8
35	S-66-3	17813-9
36	S-67-1	17813-10
37	S-67-2	17813-11
38	S-67-3	17813-12
39	S-74-1	17813-13
40	S-70-1	17813-14
41	S-70-2	17813-15
42	S-70-3	17813-16
43	S-71-1	17813-17
44	S-71-3	17813-18
45	S-77-1	17813-19
46	S-77-2	17813-20
47	S-77-3	17813-21
48	S-81-1	17825-1
49	S-82-1	17825-2
50	S-82-2	17825-3
51	S-82-4	17825-4

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

DATA PACKAGE COMPLETENESS CHECKLIST:

Checklist Code:

X	Included: no problems
*	Included: problems noted in review
O	Not Included and/or Not Available
NR	Not Required
RS	Provided As Re-submission

Case Narrative:

X	Case Narrative present

Quality Control Summary Package:

X	Data Summary sheets
X	Matrix Spike/Spike Duplicate Recoveries
X	Laboratory Control Sample Recoveries
X	Method Blank Summaries
X	GC/MS Tuning and Mass Calibration
X	Initial Calibration Data
*	Continuing Calibration Data
*	Surrogate Compound Recovery Summary
X	Internal Standard Area Summary

Sample and Blank Data Package Section

X	Reconstructed Ion Current (RIC) Chromatogram
X	Quantitation Reports
X	Raw and Enhanced Mass Spectra
X	Reference Mass Spectra for Target Compounds
NR	Mass Spectral Library Search for TICs

Raw QC Data Package Section

X	DFTPP and/or BFB mass spectra and mass listings
X	RIC Chromatogram for Standards and MS/MSD Samples
X	Quantitation Reports for Standards and MS/MSD
O	List of Instrument Detection Limits
X	Chain-of-Custody Records
X	Sample Preparation and Analysis Run Logs

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

DATA VALIDATION SUMMARY

The data were reviewed following procedures and limits specified in the EPA OSWER directive, *Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan and Data Validation Procedures* (EPA/540/G-90/004, OSWER Directive 9360.4-01, dated April 1990).

Indicate with a YES or NO whether each item is acceptable:

1	Holding Times	Yes
2	GC/MS Tuning Criteria	Yes
3	Initial Calibrations	Yes
4	Continuing Calibrations	Yes
5	Laboratory Control Sample	Yes
6	Matrix Spike/Matrix Spike Duplicate	Yes
7	Blanks and Background Samples	Yes
8	Surrogate Compounds	Yes
9	Internal Standards	Yes
10	Duplicate Analyses	Yes
11	Analyte Identification	Yes
12	Analyte Quantitation	Yes
13	Overall Assessment of Data	Yes
14	Usability of Data	Yes

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	**Location: Oakland, CA**
Project TDD Number: 09-9712-0005	**PAN: 09-0256-DCST-XX**

1. HOLDING TIMES

_____ **Acceptable**
__X__ **Acceptable with qualification**
_____ **Unacceptable**

Samples were extracted and analyzed within required holding times except as noted under Comments. In addition, no problems were identified with regard to sample preservation or custody unless specified. For those sample fractions extracted or analyzed outside holding time requirements, the results have been qualified as estimated (J).

Water Samples:
EPA 8260B: 14 days (from collection) for analysis.
EPA 8270C: 7 days (from collection) for extraction; 40 days (from extraction) for analysis.
EPA 8290: 30 days (from collection) for extraction; 45 days (from extraction) for analysis.
Soil or Other Matrices:
EPA 5035/8260B: 7 days (from collection) for analysis.
EPA 8270C:14 days (from collection) for extraction;40 days (from extraction) for analysis.
EPA 8290: 30 days (from collection) for extraction; 45 days (from extraction) for analysis.

Comments: Sample S-79-3 was analyzed three days beyond the seven-day hold time. Because the chain of custody flagged sample S-79-3 as a high concentration sample, the laboratory analyzed (within the holding time) the sample using a high level method. The detected and nondetected results were qualified as estimated (J/UJ).

Samples S-71-3, S-81-1, and S-82-1 were analyzed less than three hours beyond the seven day hold time. Because the holding time rounds to seven days, no data were qualified.

2. GC/MS TUNING CRITERIA

__X__ **BFB (EPA 8260B) or DFTPP (EPA 8270C) has been run for every 12 hours of sample analysis per instrument.**

__X__ **The BFB or DFTPP ion abundance criteria indicated in EPA/540/G-90/004 have been met for each instrument.**

_____ **No ion abundance criteria are indicated for EPA 8290; however data demonstrating that the instrument has been tuned was provided.**

Comments: None

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

3. INITIAL CALIBRATIONS

__X__ **Acceptable**
_____ **Acceptable with qualification**
_____ **Unacceptable**

Unless flagged below, a 5-point initial calibration was run. In addition, average Relative Response Factor (RRF), and percent relative Standard Deviation (%RSD) values were within control limits (average RRF >= 0.05; %RSD <= 30). For analytes which exceeded these control limits, associated data are qualified as estimated (J). In cases where the low calibration level was not detected, the detection limit is qualified (UJ). In cases where the analyte was not detected in the calibration, associated data are rejected (R).

Comments: None.

4. CONTINUING CALIBRATIONS

__X__ **Acceptable**
_____ **Acceptable with qualification**
_____ **Unacceptable**

Unless flagged below, continuing calibrations were performed at the beginning and at the end of any group of samples and at least every 12 hours. In addition, Relative Response Factors (RRF), and Percent Difference (%D) values were within control limits (RRF >= 0.05; %D <= 25). For analytes which exceeded these control limits, associated data are qualified as estimated (J). In cases where the low calibration level was not detected, the detection limit is qualified (UJ). In cases where the analyte was not detected in the calibration, all associated data are rejected (R).

Comments: The %D for methyl bromide, ethyl chloride, and dichlorofluoromethane were high in one continuing calibration each (between 28% and 37%). Because the associated results were nondetected, no data were qualified.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

5. LABORATORY CONTROL SAMPLE

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
_____ No Laboratory Control Samples Analyzed

Laboratory control sample (LCS) recoveries are used for a qualitative indication of accuracy (bias) independent of matrix effects. Spike recovery limits of 80% to 120% are specified in EPA/540/G-90/004. For analytes which exceeded these control limits, associated detected results are qualified as estimated (J). At the discretion of the reviewer, other limits may be used only if justification can be provided.

Comments: None

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
_____ No Matrix Spike/Matrix Spike Duplicates Analyzed

Matrix spike and matrix spike duplicate recoveries are used for a qualitative indication of accuracy (bias) due to matrix effects. The RPD between the recoveries is used for a qualitative indication of precision. Spike recovery limits of 80% to 120% are specified in EPA/540/G-90/004. For analytes which exceeded these control limits, associated detected results are qualified as estimated (J). At the discretion of the reviewer, other limits may be used only if justification can be provided.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

7. BLANKS AND BACKGROUND SAMPLES

__X__ Acceptable
_____ Practical Quantitation Limit Adjusted
The following blanks were analyzed:
__X__ Method (preparation) Blanks
_____ Field Blanks
_____ Instrument Blanks
_____ Rinsate Blanks
_____ Background Samples
_____ VOA Trip Blanks

Preparation (method) blanks were prepared for each batch of samples extracted. A preparation blank was analyzed after every continuing calibration standard, prior to sample analysis unless noted below. Any compound detected in the sample and also detected in any associated blank, must be qualified as non-detect (U) when the sample concentration is less than 5x the blank concentration.

Comments: The method blank results were nondetected.

8. SURROGATE COMPOUNDS

_____ Acceptable
__X__ Acceptable with qualification
_____ Unacceptable

Surrogate compound recoveries for samples analyzed within a sample group must be within the limits specified in the method. If the surrogate recovery is between 10% and the lower limit, the associated detected results are qualified as estimated (J) and the nondetected results are qualified as estimated (UJ). If the surrogate recovery is <10%, the associated detected results are qualified as estimated (J) and the nondetected results are rejected (R). If the surrogate recovery is above the upper limit, the associated detected results are qualified as estimated (J). Surrogate recoveries which exceeded these limits are noted below and the associated results are qualified on the attached sample report forms.

Comments:
The surrogate recoveries in sample S-60-1 and S-61-1 were below the control limits. The recoveries were between 43% and 54%. The detected and nondetected results were qualified as estimated (J/UJ).

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

9. INTERNAL STANDARDS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Internal Standard area counts for samples analyzed within a sample group must be within the range of 50% to 200% of the internal standard area for the continuing calibration. If the internal standard area is between 10% and 50% of this value, the associated detected results are qualified as estimated (J) and the nondetected results may be qualified as estimated (UJ), based on professional judgement. If the internal standard area is <10% of the calibration area, both the detected and nondetected results are rejected (R). If the internal standard area is >200% of the calibration area, the associated detected results are qualified as estimated (J). Internal standards which exceeded these limits are noted below and the associated results are qualified on the attached sample report forms.

Comments: None.

10. DUPLICATE ANALYSES

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
_____ No Duplicates Analyzed

Type of duplicates analyzed:

__X__ Field Duplicates
_____ Laboratory Duplicates

Calculate the relative Percent Difference (RPD) between the members of duplicate pairs using the equation indicated below. Qualify the results as estimated (J) for any analyte whose RPD exceeds that specified in the Field Sampling Plan and Quality Assurance Project Plan (FSP/QAPP).

$$RPD = \frac{2(Value\ 1 - Value\ 2)}{Value\ 1 + Value\ 2} \times 100\%$$

Comments: Two samples were collected in duplicate. The RPDs were within the limits (0-50% RPD) specified in the FSP/QAPP.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

11. ANALYTE IDENTIFICATION

Evaluate the ion profiles for the sample analytes and compare them to the library ion profiles provided by the laboratory. Note any identifications which are not sufficiently supported by comparison to known ion profiles.

Comments:
Analyte identification is acceptable.

12. ANALYTE QUANTITATION

Confirm that analyte quantitation was performed correctly using the following formulas:

EPA 8260B, water samples:

$$\text{ug/L} = \frac{(\text{analyte area})(\text{amount of internal standard, ng})}{(\text{internal standard area})(\text{RF})(\text{volume of water purged, mL})}$$

EPA 8260B, soil samples:

$$\text{ug/kg} = \frac{(\text{analyte area})(\text{amount of internal standard, ng})}{(\text{internal standard area})(\text{RF})(\text{weight of soil extracted, g})(\text{fraction solids})}$$

EPA 8270C and 8290, water samples:

$$\text{ug/L} = \frac{(\text{analyte area})(\text{amount of internal standard, ng})(\text{total volume of extract, uL})}{(\text{internal standard area})(\text{RF})(\text{volume of sample extracted, mL})(\text{injection volume, uL})}$$

EPA 8270C and 8290, soil samples:

$$\text{ug/kg} = \frac{(\text{analyte area})(\text{amount of internal standard, ng})(\text{total volume of extract, uL})}{(\text{internal standard area})(\text{RF})(\text{weight of sample extracted, g})(\text{fraction solids})(\text{injection volume, uL})}$$

Comments:
Analyte quantitation is acceptable.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	Location: Oakland, CA
Project TDD Number: 09-9712-0005	PAN: 09-0256-DCST-XX

13. OVERALL ASSESSMENT OF DATA

On the basis of this review, the following determination has been made with regard to the overall data usability for the specified level.

_____ **Acceptable**
__X__ **Acceptable with Qualification**
_____ **Rejected (one sample only)**

Accepted data meet the minimum requirements for the following EPA data category:
_____ **ERS Screening**
_____ **Non-definitive with 10 % Conformation by Definitive Methodology**
_____ **Definitive, Comprehensive Statistical Error Determination was performed.**
__X__ **Definitive, Comprehensive Statistical Error Determination was not performed.**

Any qualifications to individual sample analysis results are detailed in the appropriate section above or appear under the comments section below. In cases where several QC criteria are out of specification, it may be appropriate to further qualify the data usability. The data reviewer must use professional judgment and express concerns and comments on the data validity for each specific data package.

Comments:
Because the QC issues did not indicate a probability that false negatives or false positives could be reported, all data are acceptable with the results in three samples qualified as estimated due to low surrogate recoveries and a minor hold time violation.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	**Location: Oakland, CA**
Project TDD Number: 09-9712-0005	**PAN: 09-0256-DCST-XX**

14. USABILITY OF DATA

A. These data are considered usable for the following the data use objectives stated in the DC Metals Site Field Sampling Plan and Quality Assurance Project Plan (FSP/QAPP).

The following data use objectives were indicated in the FSP/QAPP:

1. To determine the magnitude and extent of contamination on-site.
2. To determine the volume of soil that needs to be addressed for removal and/or remediation.
3. To provide initial data necessary to begin a Hazard Ranking System for the site.
4. To determine whether further site characterization is necessary.

The detected and nondetected results in three samples were qualified as estimated. Because there is a low probability that false negatives or false positives could be reported, the data are usable for the purposes indicated above.

B. These data meet quality objectives stated in the FSP/QAPP.
Data quality objectives are indicated in Section 3.5 of the FSP/QAPP. The data meet the quality criteria described in the SAP.

15. DOCUMENTATION OF LABORATORY CORRECTIVE ACTION

Problem: No problems requiring corrective action were observed.
Resolution: Not required.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals Site	**Location: Oakland, CA**
Project TDD Number: 09-9712-0005	**PAN: 09-0256-DCST-XX**

APPENDIX A. ANNOTATED DATA SUMMARY SHEETS

Attached are copies of all data summary sheets, with data qualifiers indicated (hand-annotated), and a copy of the chains of custody for the samples.

When appropriate, the practical quantitation limits have been adjusted to reflect the qualifications noted during the data validation. Errors in the reporting of detected results will not usually be changed by hand. In these cases, the laboratory may be required to re-submit the affected data summary sheets and any associated portions of the data package.

The following data validation qualifiers may be used in this review. Their definitions are taken from the EPA OSWER directive, *Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan and Data Validation Procedures* (EPA/540/G-90/004, OSWER Directive 9360.4-01, dated April 1990).

J The associated numerical value is an estimated quantity because the reported concentrations were less than the required practical quantitation limits or because quality control criteria were not met.

R The sample results are rejected (analyte may or may not be present) due to gross deficiencies in quality control criteria. Any reported value is unusable. Resampling and/or reanalysis is necessary for verification.

U The material was analyzed for, but not detected. The associated numerical value is the sample practical quantitation limit or adjusted sample practical quantitation limit.

UJ The material was analyzed for, but not detected. The reported practical quantitation limit is estimated because quality control criteria were not met.

NJ Presumptive evidence of the presence of the material (tentatively identified compound) at an estimated quantity.

Office of Enforcement

CHAIN OF CUSTODY RECORD

75 Hawthorne Street
San Francisco, California 94105

PROJ. NO.	PROJECT NAME
090256 DCST	DC Metals

SAMPLERS: (Signature)
W. Duncan, C. McLeod

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	5035	8260B Project list					REMARKS
S-69-1	9/9/99	1620		✓	Section I 19769-1		✓						HIGH CONCENTRATION SAMPLES
S-69-2		1625		✓	" -2		✓						
S-69-3		1640		✓	" -3		✓						
S-73-1		1600		✓	Section L -4		✓						
S-76-1		1525		✓	Section O -5		✓						
S-79-1		1330		✓	Section R -6		✓						
S-79-2		1400		✓	" -7		✓						
S-79-3		1420		✓	" -8		✓						
													Data summary - 2 weeks
													FAX to C. McLeod 415 981 2811
													Data package and electronic
													deliverables to: C. McLeod, E & E
													350 Sansome St Suite 300
													San Francisco, CA 94104

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Thomas Lewis	9/9/99 17:00				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		Kim Oakley	9.10.99 12:20		

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9 25016

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

75 Hawthorne St.
San Francisco, California 94105

PROJ. NO.	PROJECT NAME
0256DCSTXX	DC Metals

SAMPLERS: *(Signature)*
W. Duncan, T. Genolio

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	5035/8260B Site List
S-78-1	9/13	0945		✓	Section Q 17794-1	4x EnCore	✓
S-78-2		1005		✓	" -2	"	✓
S-78-3		1030		✓	" -3	"	✓
S-75-1		1100		✓	Section N -4	3x EnCore	✓
S-72-1		1115		✓	Section K -5	4x EnCore	✓
S-72-2		1150		✓	" -6	"	✓
S-72-3		1210		✓	" -7	"	✓
S-68-1		1530		✓	Section H -8	"	✓
S-64-1		1550		✓	Section E -9	"	✓
S-64-2		1600		✓	" -10	"	✓
S-64-3		1610		✓	" -11	"	✓
S-65-1		1555		✓	" -12	"	✓
S-65-2		1605		✓	" -13	"	✓
S-63-1		1635		✓	Section D -14	"	✓
S-63-2		1650		✓	" -15	"	✓

REMARKS

High Concentration

For summaries – 10 days
to: C. Mcleod 4159810801
Mail packages } EDS – 20 days
to: C. Mcleod, E & E
350 Sansome St Suite 300
San Francisco, CA 94104

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
CMcleod	9/13/99 1710	To Fedex
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)* Virginia Scott

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*

Date / Time: 9/14/99 11:30

Remarks

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9 24377

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 9
75 Hawthorne Street
San Francisco, California 94105

PROJ. NO.	PROJECT NAME
02560CSTXX	DC Metals

SAMPLERS: *(Signature)*
W. Duncan, T. Genolio

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	5035	8260B Alkenes					REMARKS
S-63-3	9/13	1700		✓	Section D 17794-16	4 x Encor	✓						High concentration

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
C. Uchevd	9/13/99 1710	To Fedex			
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks	
		Virginia Scott	9.14.99 11:30		

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9 25017

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 9
75 Hawthorne Street
San Francisco, California 94105

PROJ. NO.	PROJECT NAME
6256 DCSTAX	DC Metals

SAMPLERS: *(Signature)*
Duncan, Genolio

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	5035/82603	82603					REMARKS
S-84	9/14	1310		✓	Park - Area V(Y) 17812 -1	4x Encore	✓						
S-84D	|	1310		✓	" -2	1x 8oz		✓					These are NOT expected to be high concentration samples
GW-84	|	1510		✓	" -3	3x VOA		✓					
GW-85	|	1635		✓	" -4	3x VOA		✓					
GW-86	|	1635		✓	" -5	3x VOA		✓					

FAX summaries to: C. McLeod
4159810801
Mail packages to: C. McLeod
E & E
350 Sansome #300
San Francisco, CA 94104

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
C McLeod	9/14/99 17:00				
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks	
		Frank Cg	9/14/99 17:00		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

9 25018

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

75 Hawthorne Street
San Francisco, California 94105

PROJ. NO.	PROJECT NAME
0256 DCSTXX	DC Metals

SAMPLERS: *(Signature)*
W. Duncan, T. Genolio

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	9035/8260B Project list	8260B	REMARKS
S-60-1		1000		✓	Section A / 7813-1	1 x Encore	✓		
S-60-2		1015		✓	" 2	"	✓		Samples are low/Medium concentration. No volatiles detected during sampling with PID/FID.
S-60-3		1020		✓	" 3	"	✓		
S-61-1		1005		✓	" 4	"	✓		
S-61-2		1010		✓	" 5	"	✓		
~~S-61-3~~	~~dup~~	~~10~~	~~dup~~			"	✓		
S-66-1		1035		✓	Section F 6	"	✓		
S-66-2		1050		✓	" 7	"	✓		
S-66-2D		1055	dup	✓	" 8	1 x Poly		✓	Summaries due 10 days
S-66-3		1110		✓	" 9	1 x Encore	✓		FAX to: C. Mcleod 415 781 2811
S-67-1		1140		✓	Section G 10	"	✓		Data packages & EDF 20 days
S-67-2		1145		✓	" 11	"	✓		Mail to C Mcleod, L&E
S-67-3		1200		✓	" 12	"	✓		300 Sansome St Ste 300
S-74-1		1550		✓	Section M 13	"	✓		San Francisco, CA, 94104

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
CMcleod	9/15/99 1655				
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks	
		[illegible]	9/15/99 1655		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

9 25019

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 9
75 Hawthorne Street
San Francisco, California 94105

CHAIN OF CUSTODY RECORD

PROJ. NO.: 0256DCSTXX
PROJECT NAME: DC Metals

SAMPLERS: (Signature) W. Duncan, T. Genolio

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	5035/8260B Project list	MS/MSD					REMARKS
S-70-1	9/15/99	1455		✓	Section J 17813-14		✓						High concentration samples
S-70-2		1505		✓	" 15		✓						
S-70-3		1530		✓	" 16		✓						
S-71-1		1500		✓	" 17		✓						
S-71-3		1535		✓	" 18		✓						
~~S-71-3~~	au				~~18~~								
S-77-1		1625		✓	19 ~~20~~		✓	✓					
S-77-2		1635		✓	20 ~~21~~		✓	✓					
S-77-3		1645		✓	21		✓	✓					
													FAX Summaries to C. McLeod at 415 981-0801
													Mail data & COCs to C McLeod, E&E 350 Sansome St Ste 300 San Francisco, CA 94104
													Summary - 10 days Data package - 20 days

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
CMcLeod	9/15/99 1655				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[signature]	9/15/99 1655		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

9 24380

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

75 Hawthorne Street
San Francisco, California 94105

PROJ. NO.	PROJECT NAME
0256DCSTXY	DC Metals

SAMPLERS: *(Signature)*
W. Duncan, C. McLeod

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	5035 / E260B Project List	REMARKS
S-B1-1	9/16/99	17835-1		✓	Background 1-1	4x Encore	✓	Low/Med Concentrations
S-B2-1		-2		✓	Background 2-1	"	✓	
S-B2-2		-3		✓	" -2	"	✓	
S-B2-3		-4		✓	" -3	"	✓	

FAX data sammaries to:
C. McLeod 415 981 0801
Data ~~summary~~ packages & EDS to
C. McLeod
Ecology & Environment
350 Sansome St Suite 300
San Francisco, CA 94104

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
CMcleod	9/16/99 1500	To Fedex			
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks	
		Virginia Scott	9.17.99 11:40		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

9 25020

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod	Lab Number:	17813-1
	ecology and environment, Inc.	Collected:	09/15/99
	350 Sansome Street, #300	Received:	09/15/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-60-1
Project Number:	0256DCSTXX	Analyzed:	09/19/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg	
VOLATILE ORGANIC COMPOUNDS			
Acetone	20.	170.	J
Benzene	5.0	5.2	J
Bromobenzene	5.0	ND	UJ
Bromochloromethane	5.0	ND	
Bromodichloromethane	5.0	ND	
Bromoform	5.0	ND	
Bromomethane	5.0	ND	
2-Butanone	5.0	ND	
n-Butylbenzene	5.0	ND	
sec-Butylbenzene	5.0	ND	
tert-Butylbenzene	5.0	ND	
Carbon Disulfide	5.0	ND	
Carbon Tetrachloride	5.0	ND	
Chlorobenzene	5.0	ND	
Chloroethane	5.0	ND	
Chloroform	5.0	ND	
Chloromethane	5.0	ND	
2-Chlorotoluene	5.0	ND	
4-Chlorotoluene	5.0	ND	
1,2-Dibromo-3-Chloropropane	5.0	ND	
Dibromochloromethane	5.0	ND	
Dibromomethane	5.0	ND	
1,2-Dichlorobenzene	5.0	9.3	J
1,3-Dichlorobenzene	5.0	ND	UJ
1,4-Dichlorobenzene	5.0	ND	
Dichlorodifluoromethane	5.0	ND	
1,1-Dichloroethane	5.0	47.	J

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

MSD #1
17813-1.xls
JMM/sw/wj

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-1 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-60-1 Analyzed: Method:	 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND UJ
1,1-Dichloroethene	5.0	ND ↓
cis-1,2-Dichloroethene	5.0	16. J
trans-1,2-Dichloroethene	5.0	ND UJ
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND ↓
4-Isopropyltoluene	5.0	5.5 J
Methylene Chloride	5.0	ND UJ
Methyl Isobutyl Ketone (MIBK)	5.0	ND ↓
Methyl-t-Butyl Ether (MTBE)	5.0	ND ↓
Naphthalene	5.0	8.6 J
n-Propylbenzene	5.0	ND UJ
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND ↓
Toluene	5.0	7.7 J
1,2,3-Trichlorobenzene	5.0	ND UJ
1,2,4-Trichlorobenzene	5.0	ND ↓

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

MSD #1
17813-1.xls
JMM/sw/wj

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-1 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-60-1 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND U
1,1,2-Trichloroethane	5.0	ND U
Trichloroethene (TCE)	5.0	18. J
Trichlorofluoromethane (freon 11)	5.0	ND U
1,2,3-Trichloropropane	5.0	ND U
1,2,4-Trimethylbenzene	5.0	13. J
1,3,5-Trimethylbenzene	5.0	ND U
Vinyl Chloride	5.0	ND U
Xylenes	5.0	25. J
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		101
Percent Surrogate Recovery (Toluene-D8)		85
Percent Surrogate Recovery (4-Bromofluorobenzene)		54

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
17813-1.xls
JMM/sw/wj

John MacMurphey
Laboratory Director

10/8/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod
	ecology and environment, Inc.
	350 Sansome Street, #300
	San Francisco, CA 94104

Lab Number:	17813-2
Collected:	09/15/99
Received:	09/15/99
Matrix:	Soil

Project:	DC Metals
Project Number:	0256DCSTXX
Collected by:	WD/TG

Sample Description:	S-60-2
Analyzed:	09/19/99
Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	33.
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	8.9
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

MSD #1
17813-2.xls
JMM/sw/wj

805.544.4696
www.ZymaXusa.com

71 Zaca Lane
San Luis Obispo CA 93401
fax 805.544.8226

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-2 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-60-2 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	6.8
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10-8/99

MSD #1
17813-2.xls
JMM/sw/wj

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-2 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-60-2 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		92
Percent Surrogate Recovery (Toluene-D8)		99
Percent Surrogate Recovery (4-Bromofluorobenzene)		95

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
17813-2.xls
JMM/sw/wj

John MacMurphey
Laboratory Director

9/28/99

805.544.4696
www.ZymaXusa.com

71 Zaca Lane
San Luis Obispo CA 93401
fax 805.544.8226

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-3 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-60-3 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	38.
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	20.
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

10/8/99

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17813-3.xls
JMM/sw/mb

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-3 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-60-3 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

MSD #1
17813-3.xls
JMM/sw/mb

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-3 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-60-3 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		91
Percent Surrogate Recovery (Toluene-D8)		98
Percent Surrogate Recovery (4-Bromofluorobenzene)		98

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

John MacMurphey
Laboratory Director

10/28/99

MSD #1
17813-3.xls
JMM/sw/mb

ZymaX envirotechnology

Client:	Cindy McLeod	Lab Number:	17813-4
	ecology and environment, Inc.	Collected:	09/15/99
	350 Sansome Street, #300	Received:	09/15/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-61-1
Project Number:	0256DCSTXX	Analyzed:	09/19/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg	
VOLATILE ORGANIC COMPOUNDS			
Acetone	20.	220.	J
Benzene	5.0	8.2	J
Bromobenzene	5.0	ND	UJ
Bromochloromethane	5.0	ND	
Bromodichloromethane	5.0	ND	
Bromoform	5.0	ND	
Bromomethane	5.0	ND	
2-Butanone	5.0	ND	
n-Butylbenzene	5.0	ND	
sec-Butylbenzene	5.0	ND	
tert-Butylbenzene	5.0	ND	
Carbon Disulfide	5.0	ND	
Carbon Tetrachloride	5.0	ND	
Chlorobenzene	5.0	ND	
Chloroethane	5.0	ND	
Chloroform	5.0	ND	
Chloromethane	5.0	ND	
2-Chlorotoluene	5.0	ND	
4-Chlorotoluene	5.0	ND	
1,2-Dibromo-3-Chloropropane	5.0	ND	
Dibromochloromethane	5.0	ND	
Dibromomethane	5.0	ND	
1,2-Dichlorobenzene	5.0	ND	
1,3-Dichlorobenzene	5.0	ND	
1,4-Dichlorobenzene	5.0	ND	
Dichlorodifluoromethane	5.0	ND	
1,1-Dichloroethane	5.0	53.	J

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

MSD #1
17813-4.xls
JMM/sw/wj

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-4 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-61-1 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND UJ
1,1-Dichloroethene	5.0	ND UJ
cis-1,2-Dichloroethene	5.0	17. J
trans-1,2-Dichloroethene	5.0	ND UJ
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

EO 10/28/99

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17813-4.xls
JMM/sw/wj

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-4 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-61-1 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	6.7 J
1,1,2-Trichloroethane	5.0	ND UJ
Trichloroethene (TCE)	5.0	19. J
Trichlorofluoromethane (freon 11)	5.0	ND UJ
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND UJ
Xylenes	5.0	6.8
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		109
Percent Surrogate Recovery (Toluene-D8)		83
Percent Surrogate Recovery (4-Bromofluorobenzene)		43

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

Submitted by,
ZymaX envirotechnology, inc.

John MacMurphey
Laboratory Director

MSD #1
17813-4.xls
JMM/sw/wj

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod	Lab Number:	17813-5
	ecology and environment, Inc.	Collected:	09/15/99
	350 Sansome Street, #300	Received:	09/15/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-61-2
Project Number:	0256DCSTXX	Analyzed:	09/20/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	8.9
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

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***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

12/8/99

MSD #1
17813-5.xls
JMM/sw/wj

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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-5 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-61-2 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17813-5.xls
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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-5 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-61-2 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		91
Percent Surrogate Recovery (Toluene-D8)		82
Percent Surrogate Recovery (4-Bromofluorobenzene)		86

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
17813-5.xls
JMM/sw/wj

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ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-14 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-63-1 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	100000.	ND
Benzene	10000.	ND
Bromobenzene	10000.	ND
Bromochloromethane	10000.	ND
Bromodichloromethane	10000.	ND
Bromoform	10000.	ND
Bromomethane	10000.	ND
2-Butanone	10000.	ND
n-Butylbenzene	10000.	ND
sec-Butylbenzene	10000.	27000.
tert-Butylbenzene	10000.	ND
Carbon Disulfide	10000.	ND
Carbon Tetrachloride	10000.	ND
Chlorobenzene	10000.	ND
Chloroethane	10000.	ND
Chloroform	10000.	ND
Chloromethane	10000.	ND
2-Chlorotoluene	10000.	ND
4-Chlorotoluene	10000.	ND
1,2-Dibromo-3-Chloropropane	10000.	ND
Dibromochloromethane	10000.	ND
Dibromomethane	10000.	ND
1,2-Dichlorobenzene	10000.	27000.
1,3-Dichlorobenzene	10000.	ND
1,4-Dichlorobenzene	10000.	ND
Dichlorodifluoromethane	10000.	ND
1,1-Dichloroethane	10000.	25000.

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17794-14.xls
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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-14 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-63-1 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	10000.	ND
1,1-Dichloroethene	10000.	ND
cis-1,2-Dichloroethene	10000.	580000.
trans-1,2-Dichloroethene	10000.	ND
1,2-Dichloropropane	10000.	ND
1,3-Dichloropropane	10000.	ND
2,2-Dichloropropane	10000.	ND
1,1-Dichloropropene	10000.	ND
cis-1,3-Dichloropropene	10000.	ND
trans-1,3-Dichloropropene	10000.	ND
Ethylbenzene	10000.	190000.
Ethylene dibromide (EDB)	10000.	ND
Hexachlorobutadiene	10000.	ND
Isopropylbenzene	10000.	21000.
4-Isopropyltoluene	10000.	79000.
Methylene Chloride	10000.	ND
Methyl Isobutyl Ketone (MIBK)	10000.	120000.
Methyl-t-Butyl Ether (MTBE)	10000.	ND
Naphthalene	10000.	61000.
n-Propylbenzene	10000.	52000.
Styrene	10000.	ND
1,1,1,2-Tetrachloroethane	10000.	ND
1,1,2,2-Tetrachloroethane	10000.	ND
Tetrachloroethene (PCE)	10000.	31000.
Toluene	10000.	1900000.
1,2,3-Trichlorobenzene	10000.	ND
1,2,4-Trichlorobenzene	10000.	ND

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

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ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-14 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-63-1 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	10000.	ND
1,1,2-Trichloroethane	10000.	ND
Trichloroethene (TCE)	10000.	350000.
Trichlorofluoromethane (freon 11)	10000.	ND
1,2,3-Trichloropropane	10000.	ND
1,2,4-Trimethylbenzene	10000.	320000.
1,3,5-Trimethylbenzene	10000.	110000.
Vinyl Chloride	10000.	ND
Xylenes	10000.	760000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		101
Percent Surrogate Recovery (Toluene-D8)		97
Percent Surrogate Recovery (4-Bromofluorobenzene)		92

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17794-14.xls
JMM/sw/st

John MacMurphey
Laboratory Director

10/26/99

ZymaX envirotechnology

Client:	Cindy McLeod	Lab Number:	17794-15
	ecology and environment, Inc.	Collected:	09/13/99
	350 Sansome Street, #300	Received:	09/14/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-63-2
Project Number:	0256DCSTXX	Analyzed:	09/17/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	100000.	ND
Benzene	10000.	ND
Bromobenzene	10000.	ND
Bromochloromethane	10000.	ND
Bromodichloromethane	10000.	ND
Bromoform	10000.	ND
Bromomethane	10000.	ND
2-Butanone	10000.	13000.
n-Butylbenzene	10000.	ND
sec-Butylbenzene	10000.	ND
tert-Butylbenzene	10000.	ND
Carbon Disulfide	10000.	ND
Carbon Tetrachloride	10000.	ND
Chlorobenzene	10000.	ND
Chloroethane	10000.	ND
Chloroform	10000.	ND
Chloromethane	10000.	ND
2-Chlorotoluene	10000.	ND
4-Chlorotoluene	10000.	ND
1,2-Dibromo-3-Chloropropane	10000.	ND
Dibromochloromethane	10000.	ND
Dibromomethane	10000.	ND
1,2-Dichlorobenzene	10000.	ND
1,3-Dichlorobenzene	10000.	ND
1,4-Dichlorobenzene	10000.	ND
Dichlorodifluoromethane	10000.	ND
1,1-Dichloroethane	10000.	ND

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17794-15.xls
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10/28/99

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ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-15 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-63-2 Analyzed: Method:	 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	10000.	ND
1,1-Dichloroethene	10000.	ND
cis-1,2-Dichloroethene	10000.	27000.
trans-1,2-Dichloroethene	10000.	ND
1,2-Dichloropropane	10000.	ND
1,3-Dichloropropane	10000.	ND
2,2-Dichloropropane	10000.	ND
1,1-Dichloropropene	10000.	ND
cis-1,3-Dichloropropene	10000.	ND
trans-1,3-Dichloropropene	10000.	ND
Ethylbenzene	10000.	22000.
Ethylene dibromide (EDB)	10000.	ND
Hexachlorobutadiene	10000.	ND
Isopropylbenzene	10000.	ND
4-Isopropyltoluene	10000.	ND
Methylene Chloride	10000.	ND
Methyl Isobutyl Ketone (MIBK)	10000.	83000.
Methyl-t-Butyl Ether (MTBE)	10000.	ND
Naphthalene	10000.	ND
n-Propylbenzene	10000.	ND
Styrene	10000.	ND
1,1,1,2-Tetrachloroethane	10000.	ND
1,1,2,2-Tetrachloroethane	10000.	ND
Tetrachloroethene (PCE)	10000.	ND
Toluene	10000.	240000.
1,2,3-Trichlorobenzene	10000.	ND
1,2,4-Trichlorobenzene	10000.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17794-15.xls
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10/6/99

ZymaX envirotechnology

Client:	Cindy McLeod	Lab Number:	17794-15
	ecology and environment, Inc.	Collected:	09/13/99
	350 Sansome Street, #300	Received:	09/14/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-63-2
Project Number:	0256DCSTXX	Analyzed:	09/17/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	10000.	43000.
1,1,2-Trichloroethane	10000.	ND
Trichloroethene (TCE)	10000.	280000.
Trichlorofluoromethane (freon 11)	10000.	ND
1,2,3-Trichloropropane	10000.	ND
1,2,4-Trimethylbenzene	10000.	39000.
1,3,5-Trimethylbenzene	10000.	14000.
Vinyl Chloride	10000.	ND
Xylenes	10000.	92000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		105
Percent Surrogate Recovery (Toluene-D8)		98
Percent Surrogate Recovery (4-Bromofluorobenzene)		99

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17794-15.xls
JMM/sw/st

John MacMurphey
Laboratory Director

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-16 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-63-3 Analyzed: Method:	 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20000.	ND
Benzene	2000.	6200.
Bromobenzene	2000.	ND
Bromochloromethane	2000.	ND
Bromodichloromethane	2000.	ND
Bromoform	2000.	ND
Bromomethane	2000.	ND
2-Butanone	2000.	52000.
n-Butylbenzene	2000.	ND
sec-Butylbenzene	2000.	3700.
tert-Butylbenzene	2000.	ND
Carbon Disulfide	2000.	ND
Carbon Tetrachloride	2000.	ND
Chlorobenzene	2000.	ND
Chloroethane	2000.	ND
Chloroform	2000.	ND
Chloromethane	2000.	ND
2-Chlorotoluene	2000.	ND
4-Chlorotoluene	2000.	ND
1,2-Dibromo-3-Chloropropane	2000.	ND
Dibromochloromethane	2000.	ND
Dibromomethane	2000.	ND
1,2-Dichlorobenzene	2000.	ND
1,3-Dichlorobenzene	2000.	ND
1,4-Dichlorobenzene	2000.	ND
Dichlorodifluoromethane	2000.	ND
1,1-Dichloroethane	2000.	10000.

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17794-16.xls
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10/28/99

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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-16 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-63-3 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	2000.	470000.
1,1,2-Trichloroethane	2000.	ND
Trichloroethene (TCE)	2000.	1700000.
Trichlorofluoromethane (freon 11)	2000.	ND
1,2,3-Trichloropropane	2000.	ND
1,2,4-Trimethylbenzene	2000.	48000.
1,3,5-Trimethylbenzene	2000.	18000.
Vinyl Chloride	2000.	ND
Xylenes	2000.	94000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		90
Percent Surrogate Recovery (Toluene-D8)		100
Percent Surrogate Recovery (4-Bromofluorobenzene)		95

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17794-16.xls
JMM/sw/st

John MacMurphey
Laboratory Director

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-9 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-64-1 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	420.
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	310.
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	ND
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	ND
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	250.

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17794-9.xls
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10/28/99

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fax 805.544.8226

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-9 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-64-1 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	ND
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	1500.
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	410.
4-Isopropyltoluene	200.	250.
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	ND
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	720.
n-Propylbenzene	200.	510.
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	3900.
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-9 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-64-1 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	1300.
1,3,5-Trimethylbenzene	200.	480.
Vinyl Chloride	200.	ND
Xylenes	200.	3700.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		97
Percent Surrogate Recovery (Toluene-D8)		105
Percent Surrogate Recovery (4-Bromofluorobenzene)		96

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
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JMM/sw/mb

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Laboratory Director

10/28/99

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ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-10 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-64-2 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	530.
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	4000.
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	ND
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	610.
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	1900.

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Note: Extracted by EPA 5030 (Purge and Trap).

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ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-10 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-64-2 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	13000.
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	48000.
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	3400.
4-Isopropyltoluene	200.	6200.
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	5600.
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	8300.
n-Propylbenzene	200.	8000.
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	280000.
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

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ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-10 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-64-2 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	64000.
1,3,5-Trimethylbenzene	200.	21000.
Vinyl Chloride	200.	600.
Xylenes	200.	180000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		100
Percent Surrogate Recovery (Toluene-D8)		107
Percent Surrogate Recovery (4-Bromofluorobenzene)		94

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

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10/18/99

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ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-11 09/13/99 09/14/99 Soil
Project:	DC Metals	Sample Description:	S-64-3
Project Number:	0256DCSTXX	Analyzed:	09/17/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	ND
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	2200.
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	ND
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	ND
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	ND
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	590.

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-11 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-64-3 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	2500.
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	1300.
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	ND
4-Isopropyltoluene	200.	ND
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	6100.
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	1100.
n-Propylbenzene	200.	ND
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	12000.
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-11 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-64-3 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	730.
1,3,5-Trimethylbenzene	200.	200.
Vinyl Chloride	200.	850.
Xylenes	200.	4700.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		98
Percent Surrogate Recovery (Toluene-D8)		104
Percent Surrogate Recovery (4-Bromofluorobenzene)		100

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

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John MacMurphey
Laboratory Director

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-12 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-65-1 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	420.
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	370.
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	ND
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	ND
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	200.

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

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10/20/99

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-12 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-65-1 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	ND
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	1100.
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	450.
4-Isopropyltoluene	200.	ND
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	ND
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	ND
n-Propylbenzene	200.	740.
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	2800.
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

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MSD #2
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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-12 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-65-1 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	1200.
1,3,5-Trimethylbenzene	200.	270.
Vinyl Chloride	200.	ND
Xylenes	200.	2700.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		103
Percent Surrogate Recovery (Toluene-D8)		101
Percent Surrogate Recovery (4-Bromofluorobenzene)		96

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

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John MacMurphey
Laboratory Director

10/28/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-13 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-65-2 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	660.
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	4800.
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	ND
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	780.
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	2200.

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***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-13 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-65-2 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	15000.
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	53000.
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	3800.
4-Isopropyltoluene	200.	7800.
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	6400.
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	10000.
n-Propylbenzene	200.	9700.
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	300000.
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

EO 10/26/99

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ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod	Lab Number:	17794-13
	ecology and environment, Inc.	Collected:	09/13/99
	350 Sansome Street, #300	Received:	09/14/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-65-2
Project Number:	0256DCSTXX	Analyzed:	09/17/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	70000.
1,3,5-Trimethylbenzene	200.	23000.
Vinyl Chloride	200.	590.
Xylenes	200.	200000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		99
Percent Surrogate Recovery (Toluene-D8)		105
Percent Surrogate Recovery (4-Bromofluorobenzene)		95

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17794-13.xls
JMM/sw/st

John MacMurphey
Laboratory Director

9/28/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod
	ecology and environment, Inc.
	350 Sansome Street, #300
	San Francisco, CA 94104

Lab Number:	17813-6
Collected:	09/15/99
Received:	09/15/99
Matrix:	Soil

Project:	DC Metals
Project Number:	0256DCSTXX
Collected by:	WD/TG

Sample Description:	S-66-1
Analyzed:	09/22/99
Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	260.
Benzene	5.0	20.
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	140.
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	8.0

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17813-6.xls
JMM/sw/mb

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-6 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-66-1 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	58.
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	7.8
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17813-6.xls
JMM/sw/mb

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-6 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-66-1 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	7.9
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		92
Percent Surrogate Recovery (Toluene-D8)		106
Percent Surrogate Recovery (4-Bromofluorobenzene)		89

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
17813-6.xls
JMM/sw/mb

John MacMurphey
Laboratory Director

10/8/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-7 09/15/99 09/15/99 Soil
Project:	DC Metals	Sample Description:	S-66-2
Project Number:	0256DCSTXX	Analyzed:	09/20/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/8/99

MSD #1
17813-7.xls
JMM/sw/wj

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-7 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-66-2 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/11/99

MSD #1
17813-7.xls
JMM/sw/wj

ZymaX envirotechnology

Client:	Cindy McLeod	Lab Number:	17813-7
	ecology and environment, Inc.	Collected:	09/15/99
	350 Sansome Street, #300	Received:	09/15/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-66-2
Project Number:	0256DCSTXX	Analyzed:	09/20/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		95
Percent Surrogate Recovery (Toluene-D8)		85
Percent Surrogate Recovery (4-Bromofluorobenzene)		98

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

EJZ
10/28/99

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

John MacMurphey
Laboratory Director

MSD #1
17813-7.xls
JMM/sw/wj

ZymaX envirotechnology

Client:	Cindy McLeod	Lab Number:	17813-8
	ecology and environment, Inc.	Collected:	09/15/99
	350 Sansome Street, #300	Received:	09/15/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-66-2D
Project Number:	0256DCSTXX	Analyzed:	09/22/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	50.	ND
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	5.9
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

10/28/99

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17813-8.xls
JMM/sw/ds

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-8 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-66-2D 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/28/99

MSD #2
17813-8.xls
JMM/sw/ds

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-8 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-66-2D 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		99
Percent Surrogate Recovery (Toluene-D8)		95
Percent Surrogate Recovery (4-Bromofluorobenzene)		100

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17813-8.xls
JMM/sw/ds

John MacMurphey
Laboratory Director

10/8/99

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-9 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-66-3 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

MSD #1
17813-9.xls
JMM/sw/mb

805.544.4696
www.ZymaXusa.com

71 Zaca Lane
San Luis Obispo CA 93401
fax 805.544.8226

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-9 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-66-3 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/8/99

MSD #1
17813-9.xls
JMM/sw/mb

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-9 09/15/99 09/15/99 Soil
Project:	DC Metals	Sample Description:	S-66-3
Project Number:	0256DCSTXX	Analyzed:	09/20/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		100
Percent Surrogate Recovery (Toluene-D8)		82
Percent Surrogate Recovery (4-Bromofluorobenzene)		89

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

John MacMurphey
Laboratory Director

MSD #1
17813-9.xls
JMM/sw/mb

10/28/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-10 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-67-1 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/8/99

MSD #1
17813-10.xls
JMM/sw/mb

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ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-10 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-67-1 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

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MSD #1
17813-10.xls
JMM/sw/mb

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-10 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-67-1 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		96
Percent Surrogate Recovery (Toluene-D8)		98
Percent Surrogate Recovery (4-Bromofluorobenzene)		99

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

Submitted by,
ZymaX envirotechnology, inc.

John MacMurphey
Laboratory Director

MSD #1
17813-10.xls
JMM/sw/mb

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-11 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-67-2 09/21/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	ND
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	ND
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	ND
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	ND
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

10/8/99

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17813-11.xls
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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-11 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-67-2 09/21/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	ND
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	ND
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	ND
4-Isopropyltoluene	200.	ND
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	ND
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	530.
n-Propylbenzene	200.	ND
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	ND
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

10/8/99

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17813-11.xls
JMM/sw/ds

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-11 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-67-2 09/21/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	ND
1,3,5-Trimethylbenzene	200.	ND
Vinyl Chloride	200.	ND
Xylenes	200.	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		100
Percent Surrogate Recovery (Toluene-D8)		107
Percent Surrogate Recovery (4-Bromofluorobenzene)		98

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17813-11.xls
JMM/sw/ds

John MacMurphey
Laboratory Director

ZymaX envirotechnology

Client:	Cindy McLeod
	ecology and environment, Inc.
	350 Sansome Street, #300
	San Francisco, CA 94104

Lab Number:	17813-12
Collected:	09/15/99
Received:	09/15/99
Matrix:	Soil

Project:	DC Metals
Project Number:	0256DCSTXX
Collected by:	WD/TG

Sample Description:	S-67-3
Analyzed:	09/20/99
Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

10/8/99

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17813-12.xls
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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-12 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-67-3 Analyzed: Method:	 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

MSD #1
17813-12.xls
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ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-12 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-67-3 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		91
Percent Surrogate Recovery (Toluene-D8)		87
Percent Surrogate Recovery (4-Bromofluorobenzene)		96

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/8/99

Submitted by,
ZymaX envirotechnology, inc.

John MacMurphey
Laboratory Director

MSD #1
17813-12.xls
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ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-8 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-68-1 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	ND
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	2600.
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	ND
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	4100.
1,3-Dichlorobenzene	200.	440.
1,4-Dichlorobenzene	200.	720.
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17794-8.xls
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10/28/99

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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-8 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-68-1 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	ND
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	13000.
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	2100.
4-Isopropyltoluene	200.	3800.
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	ND
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	20000.
n-Propylbenzene	200.	6300.
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	530.
Toluene	200.	17000.
1,2,3-Trichlorobenzene	200.	1200.
1,2,4-Trichlorobenzene	200.	5000.

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17794-8.xls
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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-8 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-68-1 09/17/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	52000.
1,3,5-Trimethylbenzene	200.	20000.
Vinyl Chloride	200.	ND
Xylenes	200.	58000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		95
Percent Surrogate Recovery (Toluene-D8)		103
Percent Surrogate Recovery (4-Bromofluorobenzene)		89

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17794-8.xls
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John MacMurphey
Laboratory Director

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-1 09/09/99 09/10/99 Soil
Project:	DC Metals	Sample Description:	S-69-1
Project Number:	0256DCSTXX	Analyzed:	09/15/99
Collected by:	WD/CM	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	100000.	ND
Benzene	10000.	ND
Bromobenzene	10000.	ND
Bromochloromethane	10000.	ND
Bromodichloromethane	10000.	ND
Bromoform	10000.	ND
Bromomethane	10000.	ND
2-Butanone	10000.	ND
n-Butylbenzene	10000.	ND
sec-Butylbenzene	10000.	15000.
tert-Butylbenzene	10000.	ND
Carbon Disulfide	10000.	ND
Carbon Tetrachloride	10000.	ND
Chlorobenzene	10000.	ND
Chloroethane	10000.	ND
Chloroform	10000.	ND
Chloromethane	10000.	ND
2-Chlorotoluene	10000.	ND
4-Chlorotoluene	10000.	ND
1,2-Dibromo-3-Chloropropane	10000.	ND
Dibromochloromethane	10000.	ND
Dibromomethane	10000.	ND
1,2-Dichlorobenzene	10000.	49000.
1,3-Dichlorobenzene	10000.	ND
1,4-Dichlorobenzene	10000.	ND
Dichlorodifluoromethane	10000.	ND
1,1-Dichloroethane	10000.	13000.

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17769-1.xls
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ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-1 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: S-69-1 Analyzed: Method:	 09/15/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	10000.	ND
1,1-Dichloroethene	10000.	ND
cis-1,2-Dichloroethene	10000.	660000.
trans-1,2-Dichloroethene	10000.	ND
1,2-Dichloropropane	10000.	ND
1,3-Dichloropropane	10000.	ND
2,2-Dichloropropane	10000.	ND
1,1-Dichloropropene	10000.	ND
cis-1,3-Dichloropropene	10000.	ND
trans-1,3-Dichloropropene	10000.	ND
Ethylbenzene	10000.	71000.
Ethylene dibromide (EDB)	10000.	ND
Hexachlorobutadiene	10000.	ND
Isopropylbenzene	10000.	12000.
4-Isopropyltoluene	10000.	ND
Methylene Chloride	10000.	ND
Methyl Isobutyl Ketone (MIBK)	10000.	16000.
Methyl-t-Butyl Ether (MTBE)	10000.	ND
Naphthalene	10000.	65000.
n-Propylbenzene	10000.	31000.
Styrene	10000.	ND
1,1,1,2-Tetrachloroethane	10000.	ND
1,1,2,2-Tetrachloroethane	10000.	ND
Tetrachloroethene (PCE)	10000.	100000.
Toluene	10000.	810000.
1,2,3-Trichlorobenzene	10000.	ND
1,2,4-Trichlorobenzene	10000.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/28/99

MSD #2
17769-1.xls
JMM/sw/st

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-1 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-69-1 09/15/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	10000.	ND
1,1,2-Trichloroethane	10000.	ND
Trichloroethene (TCE)	10000.	200000.
Trichlorofluoromethane (freon 11)	10000.	ND
1,2,3-Trichloropropane	10000.	ND
1,2,4-Trimethylbenzene	10000.	180000.
1,3,5-Trimethylbenzene	10000.	69000.
Vinyl Chloride	10000.	ND
Xylenes	10000.	370000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		96
Percent Surrogate Recovery (Toluene-D8)		102
Percent Surrogate Recovery (4-Bromofluorobenzene)		91

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

John MacMurphey
Laboratory Director

MSD #2
17769-1.xls
JMM/sw/st

10/28/99

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ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-2 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: S-69-2 Analyzed: Method:	 09/15/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	100000.	ND
Benzene	10000.	ND
Bromobenzene	10000.	ND
Bromochloromethane	10000.	ND
Bromodichloromethane	10000.	ND
Bromoform	10000.	ND
Bromomethane	10000.	ND
2-Butanone	10000.	ND
n-Butylbenzene	10000.	ND
sec-Butylbenzene	10000.	ND
tert-Butylbenzene	10000.	ND
Carbon Disulfide	10000.	ND
Carbon Tetrachloride	10000.	ND
Chlorobenzene	10000.	ND
Chloroethane	10000.	ND
Chloroform	10000.	ND
Chloromethane	10000.	ND
2-Chlorotoluene	10000.	ND
4-Chlorotoluene	10000.	ND
1,2-Dibromo-3-Chloropropane	10000.	ND
Dibromochloromethane	10000.	ND
Dibromomethane	10000.	ND
1,2-Dichlorobenzene	10000.	ND
1,3-Dichlorobenzene	10000.	ND
1,4-Dichlorobenzene	10000.	ND
Dichlorodifluoromethane	10000.	ND
1,1-Dichloroethane	10000.	ND

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/28/99

MSD #2
17769-2.xls
JMM/sw/st

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-2 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-69-2 09/15/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	10000.	ND
1,1-Dichloroethene	10000.	ND
cis-1,2-Dichloroethene	10000.	76000.
trans-1,2-Dichloroethene	10000.	ND
1,2-Dichloropropane	10000.	ND
1,3-Dichloropropane	10000.	ND
2,2-Dichloropropane	10000.	ND
1,1-Dichloropropene	10000.	ND
cis-1,3-Dichloropropene	10000.	ND
trans-1,3-Dichloropropene	10000.	ND
Ethylbenzene	10000.	52000.
Ethylene dibromide (EDB)	10000.	ND
Hexachlorobutadiene	10000.	ND
Isopropylbenzene	10000.	ND
4-Isopropyltoluene	10000.	24000.
Methylene Chloride	10000.	ND
Methyl Isobutyl Ketone (MIBK)	10000.	ND
Methyl-t-Butyl Ether (MTBE)	10000.	ND
Naphthalene	10000.	40000.
n-Propylbenzene	10000.	13000.
Styrene	10000.	ND
1,1,1,2-Tetrachloroethane	10000.	ND
1,1,2,2-Tetrachloroethane	10000.	ND
Tetrachloroethene (PCE)	10000.	ND
Toluene	10000.	370000.
1,2,3-Trichlorobenzene	10000.	ND
1,2,4-Trichlorobenzene	10000.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17769-2.xls
JMM/sw/st

10/28/99

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-2 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-69-2 09/15/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	10000.	ND
1,1,2-Trichloroethane	10000.	ND
Trichloroethene (TCE)	10000.	ND
Trichlorofluoromethane (freon 11)	10000.	ND
1,2,3-Trichloropropane	10000.	ND
1,2,4-Trimethylbenzene	10000.	76000.
1,3,5-Trimethylbenzene	10000.	27000.
Vinyl Chloride	10000.	ND
Xylenes	10000.	220000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		105
Percent Surrogate Recovery (Toluene-D8)		96
Percent Surrogate Recovery (4-Bromofluorobenzene)		95

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

John MacMurphey
Laboratory Director

MSD #2
17769-2.xls
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10/28/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-3 09/09/99 09/10/99 Soil
Project:	DC Metals	Sample Description:	S-69-3
Project Number:	0256DCSTXX	Analyzed:	09/16/99
Collected by:	WD/CM	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	360.
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	2100.
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	ND
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	ND
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	ND
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	880.

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***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17769-3.xls
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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-3 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: S-69-3 Analyzed: Method:	 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	9900.
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	ND
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	ND
4-Isopropyltoluene	200.	ND
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	6800.
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	ND
n-Propylbenzene	200.	ND
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	5200.
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17769-3.xls
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10/28/99

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-3 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-69-3 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	ND
1,3,5-Trimethylbenzene	200.	ND
Vinyl Chloride	200.	260.
Xylenes	200.	380.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		100
Percent Surrogate Recovery (Toluene-D8)		101
Percent Surrogate Recovery (4-Bromofluorobenzene)		103

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17769-3.xls
JMM/sw/mb

John MacMurphey
Laboratory Director

10/28/99

ZymaX envirotechnology

5094-00168 REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-14 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-70-1 09/21/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	ND
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	340.
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	ND
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	5600.
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	1000.
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

10/28/99

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17813-14.xls
JMM/sw/ds

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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-14 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-70-1 09/21/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	ND
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	930.
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	290.
4-Isopropyltoluene	200.	1200.
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	ND
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	6400.
n-Propylbenzene	200.	950.
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	680.
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

10/28/99

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17813-14.xls
JMM/sw/ds

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-14 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-70-1 09/21/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	4700.
1,3,5-Trimethylbenzene	200.	1700.
Vinyl Chloride	200.	ND
Xylenes	200.	3900.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		101
Percent Surrogate Recovery (Toluene-D8)		99
Percent Surrogate Recovery (4-Bromofluorobenzene)		99

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

John MacMurphey
Laboratory Director

1/28/99

MSD #2
17813-14.xls
JMM/sw/ds

ZymaX envirotechnology

Client:	Cindy McLeod
	ecology and environment, Inc.
	350 Sansome Street, #300
	San Francisco, CA 94104

Lab Number:	17813-15
Collected:	09/15/99
Received:	09/15/99
Matrix:	Soil

Project:	DC Metals
Project Number:	0256DCSTXX
Collected by:	WD/TG

Sample Description:	S-70-2
Analyzed:	09/19/99
Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20000.	ND
Benzene	2000.	ND
Bromobenzene	2000.	ND
Bromochloromethane	2000.	ND
Bromodichloromethane	2000.	ND
Bromoform	2000.	ND
Bromomethane	2000.	ND
2-Butanone	2000.	ND
n-Butylbenzene	2000.	ND
sec-Butylbenzene	2000.	4000.
tert-Butylbenzene	2000.	ND
Carbon Disulfide	2000.	3400.
Carbon Tetrachloride	2000.	ND
Chlorobenzene	2000.	ND
Chloroethane	2000.	ND
Chloroform	2000.	ND
Chloromethane	2000.	ND
2-Chlorotoluene	2000.	ND
4-Chlorotoluene	2000.	ND
1,2-Dibromo-3-Chloropropane	2000.	ND
Dibromochloromethane	2000.	ND
Dibromomethane	2000.	ND
1,2-Dichlorobenzene	2000.	65000.
1,3-Dichlorobenzene	2000.	ND
1,4-Dichlorobenzene	2000.	14000.
Dichlorodifluoromethane	2000.	ND
1,1-Dichloroethane	2000.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

10/28/99

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17813-15.xls
JMM/sw/st

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-15 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-70-2 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	2000.	ND
1,1-Dichloroethene	2000.	ND
cis-1,2-Dichloroethene	2000.	ND
trans-1,2-Dichloroethene	2000.	ND
1,2-Dichloropropane	2000.	ND
1,3-Dichloropropane	2000.	ND
2,2-Dichloropropane	2000.	ND
1,1-Dichloropropene	2000.	ND
cis-1,3-Dichloropropene	2000.	ND
trans-1,3-Dichloropropene	2000.	ND
Ethylbenzene	2000.	18000.
Ethylene dibromide (EDB)	2000.	ND
Hexachlorobutadiene	2000.	ND
Isopropylbenzene	2000.	4400.
4-Isopropyltoluene	2000.	20000.
Methylene Chloride	2000.	ND
Methyl Isobutyl Ketone (MIBK)	2000.	ND
Methyl-t-Butyl Ether (MTBE)	2000.	ND
Naphthalene	2000.	71000.
n-Propylbenzene	2000.	14000.
Styrene	2000.	ND
1,1,1,2-Tetrachloroethane	2000.	ND
1,1,2,2-Tetrachloroethane	2000.	ND
Tetrachloroethene (PCE)	2000.	ND
Toluene	2000.	93000.
1,2,3-Trichlorobenzene	2000.	ND
1,2,4-Trichlorobenzene	2000.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

10/28/99

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17813-15.xls
JMM/sw/st

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-15 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-70-2 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	2000.	ND
1,1,2-Trichloroethane	2000.	ND
Trichloroethene (TCE)	2000.	ND
Trichlorofluoromethane (freon 11)	2000.	ND
1,2,3-Trichloropropane	2000.	ND
1,2,4-Trimethylbenzene	2000.	64000.
1,3,5-Trimethylbenzene	2000.	27000.
Vinyl Chloride	2000.	ND
Xylenes	2000.	91000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		97
Percent Surrogate Recovery (Toluene-D8)		104
Percent Surrogate Recovery (4-Bromofluorobenzene)		101

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17813-15.xls
JMM/sw/st

John MacMurphey
Laboratory Director

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod	Lab Number:	17813-16
	ecology and environment, Inc.	Collected:	09/15/99
	350 Sansome Street, #300	Received:	09/15/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-70-3
Project Number:	0256DCSTXX	Analyzed:	09/22/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	41.
Benzene	5.0	9.1
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	35.
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	7.8
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	19.

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

10/28/99

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17813-16.xls
JMM/sw/wj

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-16 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-70-3 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	38.
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	16.
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	32.
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	230.
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

10/8/99

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17813-16.xls
JMM/sw/wj

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-16 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-70-3 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	18.
1,3,5-Trimethylbenzene	5.0	6.0
Vinyl Chloride	5.0	ND
Xylenes	5.0	66.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		89
Percent Surrogate Recovery (Toluene-D8)		99
Percent Surrogate Recovery (4-Bromofluorobenzene)		96

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

10/28/99

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

John MacMurphey
Laboratory Director

MSD #1
17813-16.xls
JMM/sw/wj

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-17 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-71-1 Analyzed: Method:	 09/21/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	10000.	ND
Benzene	1000.	ND
Bromobenzene	1000.	ND
Bromochloromethane	1000.	ND
Bromodichloromethane	1000.	ND
Bromoform	1000.	ND
Bromomethane	1000.	ND
2-Butanone	1000.	ND
n-Butylbenzene	1000.	ND
sec-Butylbenzene	1000.	6400.
tert-Butylbenzene	1000.	ND
Carbon Disulfide	1000.	ND
Carbon Tetrachloride	1000.	ND
Chlorobenzene	1000.	ND
Chloroethane	1000.	ND
Chloroform	1000.	ND
Chloromethane	1000.	ND
2-Chlorotoluene	1000.	ND
4-Chlorotoluene	1000.	ND
1,2-Dibromo-3-Chloropropane	1000.	ND
Dibromochloromethane	1000.	ND
Dibromomethane	1000.	ND
1,2-Dichlorobenzene	1000.	88000.
1,3-Dichlorobenzene	1000.	ND
1,4-Dichlorobenzene	1000.	18000.
Dichlorodifluoromethane	1000.	ND
1,1-Dichloroethane	1000.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/28/99

MSD #2
17813-17.xls
JMM/sw/ds

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-17 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-71-1 09/21/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	1000.	ND
1,1-Dichloroethene	1000.	ND
cis-1,2-Dichloroethene	1000.	ND
trans-1,2-Dichloroethene	1000.	ND
1,2-Dichloropropane	1000.	ND
1,3-Dichloropropane	1000.	ND
2,2-Dichloropropane	1000.	ND
1,1-Dichloropropene	1000.	ND
cis-1,3-Dichloropropene	1000.	ND
trans-1,3-Dichloropropene	1000.	ND
Ethylbenzene	1000.	20000.
Ethylene dibromide (EDB)	1000.	ND
Hexachlorobutadiene	1000.	ND
Isopropylbenzene	1000.	5800.
4-Isopropyltoluene	1000.	23000.
Methylene Chloride	1000.	ND
Methyl Isobutyl Ketone (MIBK)	1000.	ND
Methyl-t-Butyl Ether (MTBE)	1000.	ND
Naphthalene	1000.	110000.
n-Propylbenzene	1000.	19000.
Styrene	1000.	ND
1,1,1,2-Tetrachloroethane	1000.	ND
1,1,2,2-Tetrachloroethane	1000.	ND
Tetrachloroethene (PCE)	1000.	ND
Toluene	1000.	25000.
1,2,3-Trichlorobenzene	1000.	ND
1,2,4-Trichlorobenzene	1000.	2900.

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

10/28/99

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17813-17.xls
JMM/sw/ds

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-17 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-71-1 Analyzed: Method:	 09/21/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	1000.	ND
1,1,2-Trichloroethane	1000.	ND
Trichloroethene (TCE)	1000.	ND
Trichlorofluoromethane (freon 11)	1000.	ND
1,2,3-Trichloropropane	1000.	ND
1,2,4-Trimethylbenzene	1000.	95000.
1,3,5-Trimethylbenzene	1000.	37000.
Vinyl Chloride	1000.	ND
Xylenes	1000.	95000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		104
Percent Surrogate Recovery (Toluene-D8)		102
Percent Surrogate Recovery (4-Bromofluorobenzene)		96

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17813-17.xls
JMM/sw/ds

John MacMurphey
Laboratory Director

10/28/99

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-18 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-71-3 Analyzed: Method:	 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	15.
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	66.
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	9.3
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	29.

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17813-18.xls
JMM/sw/wj

10/28/99

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-18 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-71-3 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	61.
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	21.
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	65.
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	450.
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

MSD #1
17813-18.xls
JMM/sw/wj

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-18 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-71-3 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	20.
1,3,5-Trimethylbenzene	5.0	6.9
Vinyl Chloride	5.0	ND
Xylenes	5.0	120.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		88
Percent Surrogate Recovery (Toluene-D8)		117
Percent Surrogate Recovery (4-Bromofluorobenzene)		100

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
17813-18.xls
JMM/sw/wj

John MacMurphey
Laboratory Director

10/28/99

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-5 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-72-1 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	580.
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	4500.
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	310.
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	12000.
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	1800.
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	2100.

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17794-5.xls
JMM/sw/st

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-5 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-72-1 Analyzed: Method:	 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	28000.
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	17000.
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	3300.
4-Isopropyltoluene	200.	6600.
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	ND
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	46000.
n-Propylbenzene	200.	8700.
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	280.
Toluene	200.	72000.
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17794-5.xls
JMM/sw/st

10/28/99

Client:	Cindy McLeod	Lab Number:	17794-5
	ecology and environment, Inc.	Collected:	09/13/99
	350 Sansome Street, #300	Received:	09/14/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-72-1
Project Number:	0256DCSTXX	Analyzed:	09/16/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	51000.
1,3,5-Trimethylbenzene	200.	19000.
Vinyl Chloride	200.	5100.
Xylenes	200.	75000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		95
Percent Surrogate Recovery (Toluene-D8)		108
Percent Surrogate Recovery (4-Bromofluorobenzene)		94

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17794-5.xls
JMM/sw/st

John MacMurphey
Laboratory Director

10/28/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-6 09/13/99 09/14/99 Soil
Project:	DC Metals	Sample Description:	S-72-2
Project Number:	0256DCSTXX	Analyzed:	09/16/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	ND
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	ND
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	ND
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	8600.
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	1800.
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17794-6.xls
JMM/sw/st

10/8/99

ZymaX envirotechnology

Client:	Cindy McLeod
	ecology and environment, Inc.
	350 Sansome Street, #300
	San Francisco, CA 94104

Lab Number:	17794-6
Collected:	09/13/99
Received:	09/14/99
Matrix:	Soil

Project:	DC Metals
Project Number:	0256DCSTXX
Collected by:	WD/TG

Sample Description:	S-72-2
Analyzed:	09/16/99
Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	550.
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	400.
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	230.
4-Isopropyltoluene	200.	510.
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	ND
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	4000.
n-Propylbenzene	200.	870.
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	1800.
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	200.

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/28/99

MSD #2
17794-6.xls
JMM/sw/st

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-6 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-72-2 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	3800.
1,3,5-Trimethylbenzene	200.	1600.
Vinyl Chloride	200.	220.
Xylenes	200.	2300.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		96
Percent Surrogate Recovery (Toluene-D8)		97
Percent Surrogate Recovery (4-Bromofluorobenzene)		98

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17794-6.xls
JMM/sw/st

John MacMurphey
Laboratory Director

10/28/99

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-7 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-72-3 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	8.4
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	9.3
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	240.
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	37.
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	71.

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17794-7.xls
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10/28/99

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-7 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-72-3 Analyzed: Method:	 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	540.
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	21.
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	72.
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	110.
n-Propylbenzene	5.0	7.6
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	330.
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17794-7.xls
JMM/sw/wj

10/28/99

ZymaX envirotechnology

Client:	Cindy McLeod	Lab Number:	17794-7
	ecology and environment, Inc.	Collected:	09/13/99
	350 Sansome Street, #300	Received:	09/14/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-72-3
Project Number:	0256DCSTXX	Analyzed:	09/19/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	66.
1,3,5-Trimethylbenzene	5.0	14.
Vinyl Chloride	5.0	100.
Xylenes	5.0	180.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		95
Percent Surrogate Recovery (Toluene-D8)		85
Percent Surrogate Recovery (4-Bromofluorobenzene)		104

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
17794-7.xls
JMM/sw/wj

John MacMurphey
Laboratory Director

10/26/99

ZymaX envirotechnology

Client:	Cindy McLeod
	ecology and environment, Inc.
	350 Sansome Street, #300
	San Francisco, CA 94104

Lab Number:	17769-4
Collected:	09/09/99
Received:	09/10/99
Matrix:	Soil

Project:	DC Metals
Project Number:	0256DCSTXX
Collected by:	WD/CM

Sample Description:	S-73-1
Analyzed:	09/16/99
Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	ND
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	ND
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	ND
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	ND
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17769-4.xls
JMM/sw/mb

10/8/99

805.544.4696
www.ZymaXusa.com

71 Zaca Lane
San Luis Obispo CA 93401
fax 805.544.8226

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-4 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-73-1 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	ND
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	ND
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	ND
4-Isopropyltoluene	200.	ND
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	ND
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	ND
n-Propylbenzene	200.	ND
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	ND
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/28/99

MSD #2
17769-4.xls
JMM/sw/mb

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-4 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-73-1 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	ND
1,3,5-Trimethylbenzene	200.	ND
Vinyl Chloride	200.	ND
Xylenes	200.	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		101
Percent Surrogate Recovery (Toluene-D8)		97
Percent Surrogate Recovery (4-Bromofluorobenzene)		95

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17769-4.xls
JMM/sw/mb

John MacMurphey
Laboratory Director

10/28/99

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-13 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-74-1 Analyzed: Method:	 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2500.	ND
Benzene	250.	ND
Bromobenzene	250.	ND
Bromochloromethane	250.	ND
Bromodichloromethane	250.	ND
Bromoform	250.	ND
Bromomethane	250.	ND
2-Butanone	250.	ND
n-Butylbenzene	250.	ND
sec-Butylbenzene	250.	860.
tert-Butylbenzene	250.	ND
Carbon Disulfide	250.	ND
Carbon Tetrachloride	250.	ND
Chlorobenzene	250.	ND
Chloroethane	250.	ND
Chloroform	250.	ND
Chloromethane	250.	ND
2-Chlorotoluene	250.	ND
4-Chlorotoluene	250.	ND
1,2-Dibromo-3-Chloropropane	250.	ND
Dibromochloromethane	250.	ND
Dibromomethane	250.	ND
1,2-Dichlorobenzene	250.	ND
1,3-Dichlorobenzene	250.	ND
1,4-Dichlorobenzene	250.	ND
Dichlorodifluoromethane	250.	ND
1,1-Dichloroethane	250.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/8/99

MSD #2
17813-13.xls
JMM/sw/ds

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-13 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-74-1 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	250.	ND
1,1-Dichloroethene	250.	ND
cis-1,2-Dichloroethene	250.	ND
trans-1,2-Dichloroethene	250.	ND
1,2-Dichloropropane	250.	ND
1,3-Dichloropropane	250.	ND
2,2-Dichloropropane	250.	ND
1,1-Dichloropropene	250.	ND
cis-1,3-Dichloropropene	250.	ND
trans-1,3-Dichloropropene	250.	ND
Ethylbenzene	250.	ND
Ethylene dibromide (EDB)	250.	ND
Hexachlorobutadiene	250.	ND
Isopropylbenzene	250.	3400.
4-Isopropyltoluene	250.	810.
Methylene Chloride	250.	ND
Methyl Isobutyl Ketone (MIBK)	250.	ND
Methyl-t-Butyl Ether (MTBE)	250.	ND
Naphthalene	250.	880.
n-Propylbenzene	250.	12000.
Styrene	250.	ND
1,1,1,2-Tetrachloroethane	250.	ND
1,1,2,2-Tetrachloroethane	250.	ND
Tetrachloroethene (PCE)	250.	ND
Toluene	250.	520.
1,2,3-Trichlorobenzene	250.	ND
1,2,4-Trichlorobenzene	250.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

10/28/99

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17813-13.xls
JMM/sw/ds

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-13 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-74-1 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	250.	ND
1,1,2-Trichloroethane	250.	ND
Trichloroethene (TCE)	250.	ND
Trichlorofluoromethane (freon 11)	250.	ND
1,2,3-Trichloropropane	250.	ND
1,2,4-Trimethylbenzene	250.	45000.
1,3,5-Trimethylbenzene	250.	10000.
Vinyl Chloride	250.	ND
Xylenes	250.	1600.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		103
Percent Surrogate Recovery (Toluene-D8)		100
Percent Surrogate Recovery (4-Bromofluorobenzene)		99

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17813-13.xls
JMM/sw/ds

John MacMurphey
Laboratory Director

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-4 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-75-1 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	ND
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	1400.
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	2700.
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	6600.
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	2300.
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	8300.

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/28/99

MSD #2
17794-4.xls
JMM/sw/st

Client:	Cindy McLeod	Lab Number:	17794-4
	ecology and environment, Inc.	Collected:	09/13/99
	350 Sansome Street, #300	Received:	09/14/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-75-1
Project Number:	0256DCSTXX	Analyzed:	09/16/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	14000.
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	3400.
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	2000.
4-Isopropyltoluene	200.	64000.
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	300.
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	12000.
n-Propylbenzene	200.	7300.
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	570.
Toluene	200.	29000.
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

EOL
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MSD #2
17794-4.xls
JMM/sw/st

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-4 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-75-1 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	4800.
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	1100.
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	41000.
1,3,5-Trimethylbenzene	200.	19000.
Vinyl Chloride	200.	ND
Xylenes	200.	18000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		97
Percent Surrogate Recovery (Toluene-D8)		111
Percent Surrogate Recovery (4-Bromofluorobenzene)		89

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17794-4.xls
JMM/sw/st

John MacMurphey
Laboratory Director

1/28/99

ZymaX envirotechnology

Client:	Cindy McLeod
	ecology and environment, Inc.
	350 Sansome Street, #300
	San Francisco, CA 94104

Lab Number:	17769-5
Collected:	09/09/99
Received:	09/10/99
Matrix:	Soil

Project:	DC Metals
Project Number:	0256DCSTXX
Collected by:	WD/CM

Sample Description:	S-76-1
Analyzed:	09/15/99
Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	100000.	ND
Benzene	10000.	ND
Bromobenzene	10000.	ND
Bromochloromethane	10000.	ND
Bromodichloromethane	10000.	ND
Bromoform	10000.	ND
Bromomethane	10000.	ND
2-Butanone	10000.	ND
n-Butylbenzene	10000.	ND
sec-Butylbenzene	10000.	ND
tert-Butylbenzene	10000.	ND
Carbon Disulfide	10000.	ND
Carbon Tetrachloride	10000.	ND
Chlorobenzene	10000.	27000.
Chloroethane	10000.	ND
Chloroform	10000.	ND
Chloromethane	10000.	ND
2-Chlorotoluene	10000.	ND
4-Chlorotoluene	10000.	ND
1,2-Dibromo-3-Chloropropane	10000.	ND
Dibromochloromethane	10000.	ND
Dibromomethane	10000.	ND
1,2-Dichlorobenzene	10000.	170000.
1,3-Dichlorobenzene	10000.	ND
1,4-Dichlorobenzene	10000.	ND
Dichlorodifluoromethane	10000.	ND
1,1-Dichloroethane	10000.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/28/99

MSD #2
17769-5.xls
JMM/sw/st

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-5 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-76-1 09/15/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	10000.	ND
1,1-Dichloroethene	10000.	ND
cis-1,2-Dichloroethene	10000.	ND
trans-1,2-Dichloroethene	10000.	ND
1,2-Dichloropropane	10000.	ND
1,3-Dichloropropane	10000.	ND
2,2-Dichloropropane	10000.	ND
1,1-Dichloropropene	10000.	ND
cis-1,3-Dichloropropene	10000.	ND
trans-1,3-Dichloropropene	10000.	ND
Ethylbenzene	10000.	ND
Ethylene dibromide (EDB)	10000.	ND
Hexachlorobutadiene	10000.	ND
Isopropylbenzene	10000.	ND
4-Isopropyltoluene	10000.	ND
Methylene Chloride	10000.	ND
Methyl Isobutyl Ketone (MIBK)	10000.	ND
Methyl-t-Butyl Ether (MTBE)	10000.	ND
Naphthalene	10000.	40000.
n-Propylbenzene	10000.	ND
Styrene	10000.	ND
1,1,1,2-Tetrachloroethane	10000.	ND
1,1,2,2-Tetrachloroethane	10000.	ND
Tetrachloroethene (PCE)	10000.	ND
Toluene	10000.	61000.
1,2,3-Trichlorobenzene	10000.	14000.
1,2,4-Trichlorobenzene	10000.	44000.

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

EDR
10/26/99

MSD #2
17769-5.xls
JMM/sw/st

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104
Project:	DC Metals
Project Number:	0256DCSTXX
Collected by:	WD/CM

Lab Number:	17769-5
Collected:	09/09/99
Received:	09/10/99
Matrix:	Soil
Sample Description:	S-76-1
Analyzed:	09/15/99
Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	10000.	ND
1,1,2-Trichloroethane	10000.	ND
Trichloroethene (TCE)	10000.	ND
Trichlorofluoromethane (freon 11)	10000.	ND
1,2,3-Trichloropropane	10000.	ND
1,2,4-Trimethylbenzene	10000.	57000.
1,3,5-Trimethylbenzene	10000.	21000.
Vinyl Chloride	10000.	ND
Xylenes	10000.	59000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		101
Percent Surrogate Recovery (Toluene-D8)		101
Percent Surrogate Recovery (4-Bromofluorobenzene)		97

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17769-5.xls
JMM/sw/st

John MacMurphey
Laboratory Director

10/28/99

ZymaX envirotechnology

Client:	Cindy McLeod
	ecology and environment, Inc.
	350 Sansome Street, #300
	San Francisco, CA 94104

Lab Number:	17813-19
Collected:	09/15/99
Received:	09/15/99
Matrix:	Soil

Project:	DC Metals
Project Number:	0256DCSTXX
Collected by:	WD/TG

Sample Description:	S-77-1
Analyzed:	09/21/99
Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	10000.	ND
Benzene	1000.	ND
Bromobenzene	1000.	ND
Bromochloromethane	1000.	ND
Bromodichloromethane	1000.	ND
Bromoform	1000.	ND
Bromomethane	1000.	ND
2-Butanone	1000.	ND
n-Butylbenzene	1000.	ND
sec-Butylbenzene	1000.	ND
tert-Butylbenzene	1000.	ND
Carbon Disulfide	1000.	ND
Carbon Tetrachloride	1000.	ND
Chlorobenzene	1000.	120000.
Chloroethane	1000.	ND
Chloroform	1000.	ND
Chloromethane	1000.	ND
2-Chlorotoluene	1000.	ND
4-Chlorotoluene	1000.	ND
1,2-Dibromo-3-Chloropropane	1000.	ND
Dibromochloromethane	1000.	ND
Dibromomethane	1000.	ND
1,2-Dichlorobenzene	1000.	6700.
1,3-Dichlorobenzene	1000.	ND
1,4-Dichlorobenzene	1000.	3000.
Dichlorodifluoromethane	1000.	ND
1,1-Dichloroethane	1000.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17813-19.xls
JMM/sw/ds

10/28/99

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-19 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-77-1 Analyzed: Method:	 09/21/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	1000.	ND
1,1-Dichloroethene	1000.	ND
cis-1,2-Dichloroethene	1000.	ND
trans-1,2-Dichloroethene	1000.	ND
1,2-Dichloropropane	1000.	ND
1,3-Dichloropropane	1000.	ND
2,2-Dichloropropane	1000.	ND
1,1-Dichloropropene	1000.	ND
cis-1,3-Dichloropropene	1000.	ND
trans-1,3-Dichloropropene	1000.	ND
Ethylbenzene	1000.	120000.
Ethylene dibromide (EDB)	1000.	ND
Hexachlorobutadiene	1000.	ND
Isopropylbenzene	1000.	3100.
4-Isopropyltoluene	1000.	2600.
Methylene Chloride	1000.	ND
Methyl Isobutyl Ketone (MIBK)	1000.	ND
Methyl-t-Butyl Ether (MTBE)	1000.	ND
Naphthalene	1000.	17000.
n-Propylbenzene	1000.	5000.
Styrene	1000.	ND
1,1,1,2-Tetrachloroethane	1000.	ND
1,1,2,2-Tetrachloroethane	1000.	ND
Tetrachloroethene (PCE)	1000.	ND
Toluene	1000.	9300.
1,2,3-Trichlorobenzene	1000.	ND
1,2,4-Trichlorobenzene	1000.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17813-19.xls
JMM/sw/ds

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-19 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-77-1 09/21/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	1000.	ND
1,1,2-Trichloroethane	1000.	ND
Trichloroethene (TCE)	1000.	ND
Trichlorofluoromethane (freon 11)	1000.	ND
1,2,3-Trichloropropane	1000.	ND
1,2,4-Trimethylbenzene	1000.	17000.
1,3,5-Trimethylbenzene	1000.	6300.
Vinyl Chloride	1000.	ND
Xylenes	1000.	170000.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		101
Percent Surrogate Recovery (Toluene-D8)		97
Percent Surrogate Recovery (4-Bromofluorobenzene)		100

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17813-19.xls
JMM/sw/ds

John MacMurphey
Laboratory Director

12/8/99

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-20 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-77-2 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	7.7
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	850.
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	5.6
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

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***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17813-20.xls
JMM/sw/mb

10/28/99

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71 Zaca Lane
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fax 805.544.8226

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104
Project:	DC Metals
Project Number:	0256DCSTXX
Collected by:	WD/TG

Lab Number:	17813-20
Collected:	09/15/99
Received:	09/15/99
Matrix:	Soil
Sample Description:	S-77-2
Analyzed:	09/22/99
Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	7.0
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	8.1
Naphthalene	5.0	ND
n-Propylbenzene	5.0	21.
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

MSD #1
17813-20.xls
JMM/sw/mb

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-20 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-77-2 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	5.6
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		85
Percent Surrogate Recovery (Toluene-D8)		118
Percent Surrogate Recovery (4-Bromofluorobenzene)		107

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
17813-20.xls
JMM/sw/mb

John MacMurphey
Laboratory Director

10/8/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod
	ecology and environment, Inc.
	350 Sansome Street, #300
	San Francisco, CA 94104

Lab Number:	17813-21
Collected:	09/15/99
Received:	09/15/99
Matrix:	Soil

Project:	DC Metals
Project Number:	0256DCSTXX
Collected by:	WD/TG

Sample Description:	S-77-3
Analyzed:	09/22/99
Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	6.4
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	580.
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/18/99

MSD #1
17813-21.xls
JMM/sw/wj

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71 Zaca Lane
San Luis Obispo CA 93401
fax 805.544.8226

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-21 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-77-3 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17813-21.xls
JMM/sw/wj

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17813-21 09/15/99 09/15/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-77-3 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		88
Percent Surrogate Recovery (Toluene-D8)		103
Percent Surrogate Recovery (4-Bromofluorobenzene)		105

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
17813-21.xls
JMM/sw/wj

John MacMurphey
Laboratory Director

10/8/99

ZymaX envirotechnology

Client:	Cindy McLeod	Lab Number:	17794-1
	ecology and environment, Inc.	Collected:	09/13/99
	350 Sansome Street, #300	Received:	09/14/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-78-1
Project Number:	0256DCSTXX	Analyzed:	09/16/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	ND
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	550.
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	840.
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	100000.
1,3-Dichlorobenzene	200.	4900.
1,4-Dichlorobenzene	200.	20000.
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17794-1.xls
JMM/sw/mb

10/28/99

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www.ZymaXusa.com

71 Zaca Lane
San Luis Obispo CA 93401
fax 805.544.8226

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-1 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-78-1 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	210.
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	440.
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	ND
4-Isopropyltoluene	200.	940.
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	ND
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	4800.
n-Propylbenzene	200.	510.
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	4000.
1,2,3-Trichlorobenzene	200.	500.
1,2,4-Trichlorobenzene	200.	2700.

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17794-1.xls
JMM/sw/mb

10/26/99

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-1 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-78-1 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	220.
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	4600.
1,3,5-Trimethylbenzene	200.	1700.
Vinyl Chloride	200.	ND
Xylenes	200.	3500.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		95
Percent Surrogate Recovery (Toluene-D8)		100
Percent Surrogate Recovery (4-Bromofluorobenzene)		98

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17794-1.xls
JMM/sw/mb

John MacMurphey
Laboratory Director

10/28/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-2 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-78-2 Analyzed: Method:	 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	ND
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	ND
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	1100.
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	34000.
1,3-Dichlorobenzene	200.	2200.
1,4-Dichlorobenzene	200.	11000.
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/8/99

MSD #2
17794-2.xls
JMM/sw/mb

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-2 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-78-2 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	ND
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	ND
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	ND
4-Isopropyltoluene	200.	ND
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	ND
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	460.
n-Propylbenzene	200.	ND
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	ND
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	800.

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

1/28/99

MSD #2
17794-2.xls
JMM/sw/mb

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-2 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-78-2 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	900.
1,3,5-Trimethylbenzene	200.	270.
Vinyl Chloride	200.	ND
Xylenes	200.	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		96
Percent Surrogate Recovery (Toluene-D8)		97
Percent Surrogate Recovery (4-Bromofluorobenzene)		107

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

John MacMurphey
Laboratory Director

MSD #2
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JMM/sw/mb

10/28/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-3 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-78-3 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	ND
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	ND
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	1300.
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	3200.
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	1200.
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	ND

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***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

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17794-3.xls
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ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-3 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: S-78-3 Analyzed: Method:	 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	200.
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	ND
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	ND
4-Isopropyltoluene	200.	ND
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	ND
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	ND
n-Propylbenzene	200.	ND
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	ND
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/18/99

MSD #2
17794-3.xls
JMM/sw/st

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17794-3 09/13/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-78-3 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	ND
1,3,5-Trimethylbenzene	200.	ND
Vinyl Chloride	200.	ND
Xylenes	200.	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		105
Percent Surrogate Recovery (Toluene-D8)		97
Percent Surrogate Recovery (4-Bromofluorobenzene)		101

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17794-3.xls
JMM/sw/st

John MacMurphey
Laboratory Director

9/28/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-6 09/09/99 09/10/99 Soil
Project:	DC Metals	Sample Description:	S-79-1
Project Number:	0256DCSTXX	Analyzed:	09/16/99
Collected by:	WD/CM	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	10000.	ND
Benzene	1000.	ND
Bromobenzene	1000.	ND
Bromochloromethane	1000.	ND
Bromodichloromethane	1000.	ND
Bromoform	1000.	ND
Bromomethane	1000.	ND
2-Butanone	1000.	ND
n-Butylbenzene	1000.	7200.
sec-Butylbenzene	1000.	6200.
tert-Butylbenzene	1000.	ND
Carbon Disulfide	1000.	ND
Carbon Tetrachloride	1000.	ND
Chlorobenzene	1000.	ND
Chloroethane	1000.	ND
Chloroform	1000.	ND
Chloromethane	1000.	ND
2-Chlorotoluene	1000.	ND
4-Chlorotoluene	1000.	ND
1,2-Dibromo-3-Chloropropane	1000.	ND
Dibromochloromethane	1000.	ND
Dibromomethane	1000.	ND
1,2-Dichlorobenzene	1000.	ND
1,3-Dichlorobenzene	1000.	ND
1,4-Dichlorobenzene	1000.	ND
Dichlorodifluoromethane	1000.	ND
1,1-Dichloroethane	1000.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10-6/99

MSD #2
17769-6.xls
JMM/sw/st

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-6 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-79-1 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	1000.	ND
1,1-Dichloroethene	1000.	ND
cis-1,2-Dichloroethene	1000.	ND
trans-1,2-Dichloroethene	1000.	ND
1,2-Dichloropropane	1000.	ND
1,3-Dichloropropane	1000.	ND
2,2-Dichloropropane	1000.	ND
1,1-Dichloropropene	1000.	ND
cis-1,3-Dichloropropene	1000.	ND
trans-1,3-Dichloropropene	1000.	ND
Ethylbenzene	1000.	5400.
Ethylene dibromide (EDB)	1000.	ND
Hexachlorobutadiene	1000.	ND
Isopropylbenzene	1000.	3700.
4-Isopropyltoluene	1000.	1800.
Methylene Chloride	1000.	ND
Methyl Isobutyl Ketone (MIBK)	1000.	ND
Methyl-t-Butyl Ether (MTBE)	1000.	ND
Naphthalene	1000.	2600.
n-Propylbenzene	1000.	10000.
Styrene	1000.	ND
1,1,1,2-Tetrachloroethane	1000.	ND
1,1,2,2-Tetrachloroethane	1000.	ND
Tetrachloroethene (PCE)	1000.	1800.
Toluene	1000.	3700.
1,2,3-Trichlorobenzene	1000.	ND
1,2,4-Trichlorobenzene	1000.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17769-6.xls
JMM/sw/st

10/25/99

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-6 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-79-1 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	1000.	ND
1,1,2-Trichloroethane	1000.	ND
Trichloroethene (TCE)	1000.	ND
Trichlorofluoromethane (freon 11)	1000.	ND
1,2,3-Trichloropropane	1000.	ND
1,2,4-Trimethylbenzene	1000.	4400.
1,3,5-Trimethylbenzene	1000.	ND
Vinyl Chloride	1000.	ND
Xylenes	1000.	1500.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		97
Percent Surrogate Recovery (Toluene-D8)		104
Percent Surrogate Recovery (4-Bromofluorobenzene)		84

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17769-6.xls
JMM/sw/st

John MacMurphey
Laboratory Director

10/8/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-7 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-79-2 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	2000.	ND
Benzene	200.	ND
Bromobenzene	200.	ND
Bromochloromethane	200.	ND
Bromodichloromethane	200.	ND
Bromoform	200.	ND
Bromomethane	200.	ND
2-Butanone	200.	ND
n-Butylbenzene	200.	ND
sec-Butylbenzene	200.	340.
tert-Butylbenzene	200.	ND
Carbon Disulfide	200.	ND
Carbon Tetrachloride	200.	ND
Chlorobenzene	200.	ND
Chloroethane	200.	ND
Chloroform	200.	ND
Chloromethane	200.	ND
2-Chlorotoluene	200.	ND
4-Chlorotoluene	200.	ND
1,2-Dibromo-3-Chloropropane	200.	ND
Dibromochloromethane	200.	ND
Dibromomethane	200.	ND
1,2-Dichlorobenzene	200.	ND
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Dichlorodifluoromethane	200.	ND
1,1-Dichloroethane	200.	500.

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/28/99

MSD #2
17769-7.xls
JMM/sw/st

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-7 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-79-2 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	200.	ND
1,1-Dichloroethene	200.	ND
cis-1,2-Dichloroethene	200.	600.
trans-1,2-Dichloroethene	200.	ND
1,2-Dichloropropane	200.	ND
1,3-Dichloropropane	200.	ND
2,2-Dichloropropane	200.	ND
1,1-Dichloropropene	200.	ND
cis-1,3-Dichloropropene	200.	ND
trans-1,3-Dichloropropene	200.	ND
Ethylbenzene	200.	910.
Ethylene dibromide (EDB)	200.	ND
Hexachlorobutadiene	200.	ND
Isopropylbenzene	200.	300.
4-Isopropyltoluene	200.	1100.
Methylene Chloride	200.	ND
Methyl Isobutyl Ketone (MIBK)	200.	ND
Methyl-t-Butyl Ether (MTBE)	200.	ND
Naphthalene	200.	530.
n-Propylbenzene	200.	1700.
Styrene	200.	ND
1,1,1,2-Tetrachloroethane	200.	ND
1,1,2,2-Tetrachloroethane	200.	ND
Tetrachloroethene (PCE)	200.	ND
Toluene	200.	4800.
1,2,3-Trichlorobenzene	200.	ND
1,2,4-Trichlorobenzene	200.	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

10/28/99

MSD #2
17769-7.xls
JMM/sw/st

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-7 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-79-2 09/16/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	200.	ND
1,1,2-Trichloroethane	200.	ND
Trichloroethene (TCE)	200.	ND
Trichlorofluoromethane (freon 11)	200.	ND
1,2,3-Trichloropropane	200.	ND
1,2,4-Trimethylbenzene	200.	9000.
1,3,5-Trimethylbenzene	200.	3200.
Vinyl Chloride	200.	ND
Xylenes	200.	4300.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		95
Percent Surrogate Recovery (Toluene-D8)		97
Percent Surrogate Recovery (4-Bromofluorobenzene)		96

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17769-7.xls
JMM/sw/st

John MacMurphey
Laboratory Director

10/25/99

ZymaX envirotechnology

Client:	Cindy McLeod	Lab Number:	17769-8
	ecology and environment, Inc.	Collected:	09/09/99
	350 Sansome Street, #300	Received:	09/10/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-79-3
Project Number:	0256DCSTXX	Analyzed:	09/19/99
Collected by:	WD/CM	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg	
VOLATILE ORGANIC COMPOUNDS			
Acetone	20.	34.	J
Benzene	5.0	6.6	J
Bromobenzene	5.0	ND	J
Bromochloromethane	5.0	ND	
Bromodichloromethane	5.0	ND	
Bromoform	5.0	ND	
Bromomethane	5.0	ND	
2-Butanone	5.0	ND	
n-Butylbenzene	5.0	ND	
sec-Butylbenzene	5.0	ND	
tert-Butylbenzene	5.0	ND	
Carbon Disulfide	5.0	ND	
Carbon Tetrachloride	5.0	ND	
Chlorobenzene	5.0	ND	
Chloroethane	5.0	ND	
Chloroform	5.0	ND	
Chloromethane	5.0	ND	
2-Chlorotoluene	5.0	ND	
4-Chlorotoluene	5.0	ND	
1,2-Dibromo-3-Chloropropane	5.0	ND	
Dibromochloromethane	5.0	ND	
Dibromomethane	5.0	ND	
1,2-Dichlorobenzene	5.0	ND	
1,3-Dichlorobenzene	5.0	ND	
1,4-Dichlorobenzene	5.0	ND	
Dichlorodifluoromethane	5.0	ND	
1,1-Dichloroethane	5.0	ND	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17769-8.xls
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ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-8 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-79-3 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg	
VOLATILE ORGANIC COMPOUNDS			
1,2-Dichloroethane (EDC)	5.0	ND	UJ
1,1-Dichloroethene	5.0	ND	
cis-1,2-Dichloroethene	5.0	ND	
trans-1,2-Dichloroethene	5.0	ND	
1,2-Dichloropropane	5.0	ND	
1,3-Dichloropropane	5.0	ND	
2,2-Dichloropropane	5.0	ND	
1,1-Dichloropropene	5.0	ND	
cis-1,3-Dichloropropene	5.0	ND	
trans-1,3-Dichloropropene	5.0	ND	
Ethylbenzene	5.0	45.	J
Ethylene dibromide (EDB)	5.0	ND	UJ
Hexachlorobutadiene	5.0	ND	UJ
Isopropylbenzene	5.0	7.3	J
4-Isopropyltoluene	5.0	14.	J
Methylene Chloride	5.0	ND	UJ
Methyl Isobutyl Ketone (MIBK)	5.0	20.	J
Methyl-t-Butyl Ether (MTBE)	5.0	ND	UJ
Naphthalene	5.0	8.5	J
n-Propylbenzene	5.0	26.	J
Styrene	5.0	ND	UJ
1,1,1,2-Tetrachloroethane	5.0	ND	
1,1,2,2-Tetrachloroethane	5.0	ND	
Tetrachloroethene (PCE)	5.0	ND	
Toluene	5.0	400.	J
1,2,3-Trichlorobenzene	5.0	ND	UJ
1,2,4-Trichlorobenzene	5.0	ND	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

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10/28/99

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17769-8 09/09/99 09/10/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: S-79-3 Analyzed: Method:	 09/19/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND UJ
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	210.
1,3,5-Trimethylbenzene	5.0	52.
Vinyl Chloride	5.0	ND UJ
Xylenes	5.0	180.
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		101
Percent Surrogate Recovery (Toluene-D8)		83
Percent Surrogate Recovery (4-Bromofluorobenzene)		101

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

John MacMurphey
Laboratory Director

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10/29/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17825-1 09/16/99 09/17/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-81-1 09/23/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

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***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

10/8/99

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

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17825-1.xls
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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17825-1 09/16/99 09/17/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-81-1 09/23/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

MSD #1
17825-1.xls
JMM/sw/mb

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17825-1 09/16/99 09/17/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-81-1 09/23/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		116
Percent Surrogate Recovery (Toluene-D8)		111
Percent Surrogate Recovery (4-Bromofluorobenzene)		102

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
17825-1.xls
JMM/sw/mb

John MacMurphey
Laboratory Director

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17825-2 09/16/99 09/17/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-82-1 09/23/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	110.
Benzene	5.0	6.5
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	14.
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	5.0
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17825-2 09/16/99 09/17/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: S-82-1 Analyzed: Method:	 09/23/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	5.9
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17825-2.xls
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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17825-2 09/16/99 09/17/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-82-1 09/23/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		121
Percent Surrogate Recovery (Toluene-D8)		108
Percent Surrogate Recovery (4-Bromofluorobenzene)		98

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

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John MacMurphey
Laboratory Director

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17825-3 09/16/99 09/17/99 Soil
Project:	DC Metals	Sample Description:	S-82-2
Project Number:	0256DCSTXX	Analyzed:	09/20/99
Collected by:	WD/CM	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	7.4
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

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ZymaX envirotechnology

Client:	Cindy McLeod	Lab Number:	17825-3
	ecology and environment, Inc.	Collected:	09/16/99
	350 Sansome Street, #300	Received:	09/17/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-82-2
Project Number:	0256DCSTXX	Analyzed:	09/20/99
Collected by:	WD/CM	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

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Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17825-3 09/16/99 09/17/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-82-2 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		98
Percent Surrogate Recovery (Toluene-D8)		95
Percent Surrogate Recovery (4-Bromofluorobenzene)		100

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
17825-3.xls
JMM/sw/mb

John MacMurphey
Laboratory Director

10/8/99

ZymaX envirotechnology

REPORT OF ANALYTICAL RESULTS

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17825-4 09/16/99 09/17/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-82-3 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	75.
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	15.
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/18/99

MSD #1
17825-4.xls
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ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17825-4 09/16/99 09/17/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-82-3 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

***PQL - Practical Quantitation Limit**

****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

10/28/99

MSD #1
17825-4.xls
JMM/sw/mb

ZymaX envirotechnology

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17825-4 09/16/99 09/17/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/CM	Sample Description: Analyzed: Method:	S-82-3 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		96
Percent Surrogate Recovery (Toluene-D8)		89
Percent Surrogate Recovery (4-Bromofluorobenzene)		104

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
17825-4.xls
JMM/sw/mb

John MacMurphey
Laboratory Director

10/18/99

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71 Zaca Lane
San Luis Obispo CA 93401
fax 805.544.8226

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17812-1 09/14/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-84 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	20.	ND
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5:0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

MSD #1
17812-1.xls
JMM/sw/mb

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17812-1 09/14/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-84 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

FOT
10/28/99

MSD #1
17812-1.xls
JMM/sw/mb

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17812-1 09/14/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-84 09/20/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	6.9
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		90
Percent Surrogate Recovery (Toluene-D8)		82
Percent Surrogate Recovery (4-Bromofluorobenzene)		97

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5035 (Closed-System Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #1
17812-1.xls
JMM/sw/mb

John MacMurphey
Laboratory Director

10/26/99

ZymaX envirotechnology

Client:	Cindy McLeod	Lab Number:	17812-2
	ecology and environment, Inc.	Collected:	09/14/99
	350 Sansome Street, #300	Received:	09/14/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-84D
Project Number:	0256DCSTXX	Analyzed:	09/22/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
Acetone	50.	ND
Benzene	5.0	ND
Bromobenzene	5.0	ND
Bromochloromethane	5.0	ND
Bromodichloromethane	5.0	ND
Bromoform	5.0	ND
Bromomethane	5.0	ND
2-Butanone	5.0	ND
n-Butylbenzene	5.0	ND
sec-Butylbenzene	5.0	ND
tert-Butylbenzene	5.0	ND
Carbon Disulfide	5.0	ND
Carbon Tetrachloride	5.0	ND
Chlorobenzene	5.0	ND
Chloroethane	5.0	ND
Chloroform	5.0	ND
Chloromethane	5.0	ND
2-Chlorotoluene	5.0	ND
4-Chlorotoluene	5.0	ND
1,2-Dibromo-3-Chloropropane	5.0	ND
Dibromochloromethane	5.0	ND
Dibromomethane	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Dichlorodifluoromethane	5.0	ND
1,1-Dichloroethane	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17812-2.xls
JMM/sw/ds

10/28/99

805.544.4696
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71 Zaca Lane
San Luis Obispo CA 93401
fax 805.544.8226

Client:	Cindy McLeod	Lab Number:	17812-2
	ecology and environment, Inc.	Collected:	09/14/99
	350 Sansome Street, #300	Received:	09/14/99
	San Francisco, CA 94104	Matrix:	Soil
Project:	DC Metals	Sample Description:	S-84D
Project Number:	0256DCSTXX	Analyzed:	09/22/99
Collected by:	WD/TG	Method:	EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,2-Dichloroethane (EDC)	5.0	ND
1,1-Dichloroethene	5.0	ND
cis-1,2-Dichloroethene	5.0	ND
trans-1,2-Dichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
1,3-Dichloropropane	5.0	ND
2,2-Dichloropropane	5.0	ND
1,1-Dichloropropene	5.0	ND
cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
Ethylbenzene	5.0	ND
Ethylene dibromide (EDB)	5.0	ND
Hexachlorobutadiene	5.0	ND
Isopropylbenzene	5.0	ND
4-Isopropyltoluene	5.0	ND
Methylene Chloride	5.0	ND
Methyl Isobutyl Ketone (MIBK)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Naphthalene	5.0	ND
n-Propylbenzene	5.0	ND
Styrene	5.0	ND
1,1,1,2-Tetrachloroethane	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
Tetrachloroethene (PCE)	5.0	ND
Toluene	5.0	ND
1,2,3-Trichlorobenzene	5.0	ND
1,2,4-Trichlorobenzene	5.0	ND

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

MSD #2
17812-2.xls
JMM/sw/ds

10/28/99

Client:	Cindy McLeod ecology and environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104	Lab Number: Collected: Received: Matrix:	17812-2 09/14/99 09/14/99 Soil
Project: Project Number: Collected by:	DC Metals 0256DCSTXX WD/TG	Sample Description: Analyzed: Method:	S-84D 09/22/99 EPA 8260

CONSTITUENT	PQL* ug/kg	RESULT** ug/kg
VOLATILE ORGANIC COMPOUNDS		
1,1,1-Trichloroethane (TCA)	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Trichloroethene (TCE)	5.0	ND
Trichlorofluoromethane (freon 11)	5.0	ND
1,2,3-Trichloropropane	5.0	ND
1,2,4-Trimethylbenzene	5.0	ND
1,3,5-Trimethylbenzene	5.0	ND
Vinyl Chloride	5.0	ND
Xylenes	5.0	ND
Percent Surrogate Recovery (1,2-Dichloroethane-D4)		103
Percent Surrogate Recovery (Toluene-D8)		99
Percent Surrogate Recovery (4-Bromofluorobenzene)		105

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
***PQL - Practical Quantitation Limit**
****Results listed as ND would have been reported if present at or above the listed PQL.**

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
ZymaX envirotechnology, inc.

MSD #2
17812-2.xls
JMM/sw/ds

John MacMurphey
Laboratory Director

14-8/99

DATA SUMMARIES

Sample Marix: Residential Soil Gas, Crawlspace Air, Ambient Air
Analysis: Vinyl Chloride by TO-14 SIM
Sample Date(s): 4/24/00
Laboratory: Air Toxics, Ltd.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX
Laboratory: Air Toxics LTD.	Lab Project Number: 0004465B
Sampling Dates: 04/24/00	Sample Matrix: Air & Soil gas
Analytical Method: *GC-MS (EPA TO-14-SIM)*	Data Reviewer: Mindy Song

REVIEW AND APPROVAL:

Data Reviewer: Mindy C. Song Date: 5/30/00

Technical QA Reviewer: _____ Date: _____

Project Manager: _____ Date: 6/9/00

SAMPLE IDENTIFICATION:

Sample No.	Sample I.D.	Laboratory I.D.
1	CA-101	0004465B-01A
2	AA-105	0004465B-02A
3	CA-102	0004465B-03A
4	AA-101	0004465B-04A
5	AA-102	0004465B-05A
6	AA-100	0004465B-06A
7	CA-100	0004465B-07A
8	SG-101	0004465B-08A
9	SG-100	0004465B-09A
10	AA-103	0004465B-10A
11	SG-102	0004465B-11A
12	SG-103	0004465B-12A
13	AA-104	0004465B-13A
14	CA-104	0004465B-14A
15	SG-104	0004465B-15A
16	AA-107	0004465B-16A
17		
18		
19		
20		

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

DATA PACKAGE COMPLETENESS CHECKLIST:

Checklist Code:

- X — Included: no problems
- * — Included: problems noted in review
- O — Not Included and/or Not Available
- NR — Not Required
- RS — Provided As Re-submission

Case Narrative:

- X — Case Narrative present

Quality Control Summary Package:

- X — Data Summary sheets
- O — Matrix Spike/Spike Duplicate Recoveries
- X — Laboratory Control Sample Recoveries
- X — Method Blank Summaries
- X — GC/MS Tuning and Mass Calibration
- X — Initial Calibration Data
- X — Continuing Calibration Data
- X — Surrogate Compound Recovery Summary
- X — Internal Standard Area Summary

Sample and Blank Data Package Section

- X — Reconstructed Ion Current (RIC) Chromatogram
- X — Quantitation Reports
- X — Raw and Enhanced Mass Spectra
- X — Reference Mass Spectra for Target Compounds
- NR — Mass Spectral Library Search for TICs

Raw QC Data Package Section

- X — DFTPP and/or BFB mass spectra and mass listings
- X — RIC Chromatogram for Standards, LCS, and MS/MSD
- X — Quantitation Reports for Standards, LCS, and MS/MSD
- NR — List of Instrument Detection Limits
- X — Chain-of-Custody Records
- X — Sample Preparation and Analysis Run Logs

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

DATA VALIDATION SUMMARY

The data were reviewed following procedures and limits specified in the EPA OSWER directive, *Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan and Data Validation Procedures* (EPA/540/G-90/004, OSWER Directive 9360.4-01, dated April 1990).

Indicate with a YES or NO whether each item is acceptable:

1	Holding Times	YES
2	GC/MS Tuning Criteria	YES
3	Initial Calibrations	YES
4	Continuing Calibrations	YES
5	Laboratory Control Sample	YES
6	Matrix Spike/Matrix Spike Duplicate	NA
7	Blanks and Background Samples	YES
8	Surrogate Compounds	YES
9	Internal Standards	YES
10	Duplicate Analyses	YES
11	Analyte Identification	YES
12	Analyte Quantitation	YES
13	Overall Assessment of Data	YES
14	Usability of Data	YES

Comments: Sixteen 6L Summa Canister samples were delivered to the laboratory for ultra low level Vinyl Chloride by EPA Methods TO-14/TO-15 using GC/MS Selected Ion Monitoring (SIM). NA: Not Available.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

1. HOLDING TIMES

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Samples were extracted and analyzed within required holding times except as noted under Comments. In addition, no problems were identified with regard to sample preservation or custody unless specified. For those samples analyzed outside holding time requirements, the detected results have been qualified as estimated (J), and the nondetected results have been qualified either as estimated (UJ) or rejected (R) based on the reviewer's judgement.

Water Samples:
EPA 8260B: 14 days (from collection) for analysis.
EPA 8270C: 7 days (from collection) for extraction; 40 days (from extraction) for analysis.
Soil or Other Matrices:
EPA 8260B: 14 days (from collection) for analysis.
EPA 8270C:14 days (from collection) for extraction;40 days (from extraction) for analysis.

Comments: The samples were analyzed 12 to 13 days from the time of collection.

2. GC/MS INSTRUMENT PERFORMANCE CRITERIA

__X__ BFB (EPA 8260B) or DFTPP (EPA 8270C) has been run for every 12 hours of sample analysis per instrument.

__X__ The BFB or DFTPP ion abundance criteria indicated in EPA/540/G-90/004 have been met for each instrument.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

3. INITIAL CALIBRATIONS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Unless flagged below, a 5-point initial calibration was run. In addition, average Relative Response Factor (RRF), and percent relative Standard Deviation (%RSD) values were within control limits (average RRF >= 0.05; %RSD <= 30). For analytes which exceeded the %RSD control limit, associated detected results are qualified as estimated (J). If the low calibration level was not detected, the nondetected results are qualified (UJ). For analytes which exceeded the RRF control limit, associated detected results are qualified as estimated (J) and the nondetected results are qualified as rejected (R).

Comments: None.

4. CONTINUING CALIBRATIONS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Unless flagged below, continuing calibrations were performed at the beginning and at the end of any group of samples and at least every 12 hours. In addition, Percent Difference (%D) values were within the control limit (%D <= 25). For analytes which exceeded the %D control limit, associated detected results are qualified as estimated (J). In cases where the %D is very high and indicates a severe loss of instrument sensitivity, the associated nondetected results may be qualified as estimated (UJ) or rejected (R) based on the professional judgement of the reviewer.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

5. LABORATORY CONTROL SAMPLE

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
_____ No Laboratory Control Samples Analyzed

Laboratory control sample recoveries are used for a qualitative indication of accuracy (bias) independent of matrix effects. Spike recovery limits of 80% to 120% are specified in EPA/540/G-90/004. For analytes which exceeded these control limits, associated detected results are qualified as estimated (J). At the discretion of the reviewer, other limits may be used only if justification can be provided.

Comments: LCS was not run for samples analyzed on May 7, 2000. Finding does not affect the reported results because the results were all non-detected.

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

_____ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
__X__ No Matrix Spike/Matrix Spike Duplicates Analyzed

Matrix spike and matrix spike duplicate recoveries are used for a qualitative indication of accuracy (bias) due to matrix effects. The RPD between the recoveries is used for a qualitative indication of precision. Spike recovery limits of 80% to 120% are specified in EPA/540/G-90/004. For analytes which exceeded these control limits, associated detected results are qualified as estimated (J). At the discretion of the reviewer, other limits may be used only if justification can be provided.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

7. BLANKS AND BACKGROUND SAMPLES

__X__ Acceptable
_____ Detection Limits Adjusted

The following blanks were analyzed:
__X__ Method (preparation) Blanks
_____ Field Blanks
_____ Instrument Blanks
_____ Rinsate Blanks
_____ Background Samples
_____ VOA Trip Blanks

Preparation (method) blanks were prepared for each batch of samples extracted. A preparation blank was analyzed after every continuing calibration standard, prior to sample analysis unless noted below. Any compound detected in the sample and also detected in any associated blank, must be qualified as non-detect (U) when the sample concentration is less than 5x the blank concentration.

Comments: No contamination was found in the method blank.

8. SURROGATE COMPOUNDS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Surrogate compound recoveries for samples analyzed within a sample group must be within the limits specified in the method. If the surrogate recovery is between 10% and the lower limit, the associated detected results are qualified as estimated (J) and the nondetected results are qualified as estimated (UJ). If the surrogate recovery is <10%, the associated detected results are qualified as estimated (J) and the nondetected results are rejected (R). If the surrogate recovery is above the upper limit, the associated detected results are qualified as estimated (J). Surrogate recoveries which exceeded these limits are noted below and the associated results are qualified on the attached sample report forms.

Comments: All surrogate recoveries were within the control limits.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

9. INTERNAL STANDARDS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Internal Standard area counts for samples analyzed within a sample group must be within the range of 50% to 200% of the internal standard area for the continuing calibration. If the internal standard area is between 10% and 50% of this value, the associated detected results are qualified as estimated (J) and the nondetected results are qualified as estimated (UJ). If the internal standard area is <10% of the calibration area, both the detected and nondetected results are rejected (R). If the internal standard area is >200% of the calibration area, the associated detected results are qualified as estimated (J). Internal standards which exceeded these limits are noted below and the associated results are qualified on the attached sample report forms.

Comment: All internal Standard area counts were within 40% of daily CCV internal standards.

10. DUPLICATE ANALYSES

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
_____ No Duplicates Analyzed

Type of duplicates analyzed:
__X__ Field Duplicates
_____ Laboratory Duplicates

Calculate the relative Percent Difference (RPD) between the members of duplicate pairs using the equation indicated below. Qualify the results as estimated (J) for any analyte whose RPD exceeds that specified in the Sampling and Analysis Plan.

$$RPD = \frac{2(Value\ 1 - Value\ 2)}{Value\ 1 + Value\ 2} \times 100\%$$

Comments: Three sets of field duplicate samples were collected and analyzed.

	SG-100/ SG-101	CA-100/CA-101	AA-100/AA-101
Vinyl Chloride (ppbv)	ND / ND	ND / ND	ND / ND

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

11. ANALYTE IDENTIFICATION

Evaluate the ion profiles for the sample analytes and compare them to the library ion profiles provided by the laboratory. Note any identifications which are not sufficiently supported by comparison to known ion profiles.

Comments: Analyte identification is acceptable.

12. ANALYTE QUANTITATION

Confirm that analyte quantitation was performed correctly using the following formulas:

EPA 8260B, water samples:

$$\text{ug/L} = \frac{\text{(analyte area)(amount of internal standard, ng)}}{\text{(internal standard area)(RF)(volume of water purged, mL)}}$$

EPA 8260B, soil samples:

$$\text{ug/kg} = \frac{\text{(analyte area)(amount of internal standard, ng)}}{\text{(internal standard area)(RF)(weight of soil extracted, g)(fraction solids)}}$$

EPA 8270C, water samples:

$$\text{ug/L} = \frac{\text{(analyte area)(amount of internal standard, ng)(total volume of extract, uL)}}{\text{(internal standard area)(RF)(volume of sample extracted, mL)(injection volume, uL)}}$$

EPA 8270C, soil samples:

$$\text{ug/kg} = \frac{\text{(analyte area)(amount of internal standard, ng)(total volume of extract, uL)}}{\text{(internal standard area)(RF)(weight of sample extracted, g)(fraction solids)(injection volume, uL)}}$$

Comments: Analyte quantitation is acceptable.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

13. OVERALL ASSESSMENT OF DATA

On the basis of this review, the following determination has been made with regard to the overall data usability for the specified level.

__X__ Acceptable
_____ Acceptable with Qualification
_____ Rejected

Accepted data meet the minimum requirements for the following EPA data category:
_____ ERS Screening
_____ Non-definitive with 10 % Conformation by Definitive Methodology
_____ Definitive, Comprehensive Statistical Error Determination was performed.
__X__ Definitive, Comprehensive Statistical Error Determination was not performed.

Any qualifications to individual sample analysis results are detailed in the appropriate section above or appear under the comments section below. In cases where several QC criteria are out of specification, it may be appropriate to further qualify the data usability. The data reviewer must use professional judgment and express concerns and comments on the data validity for each specific data package.

Comments: Data as reported is valid.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

14. USABILITY OF DATA

A. These data are considered usable for the following the data use objectives stated in the *DC METALS SITE, OAKLAND, CALIFORNIA, FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN (SAP), AUGUST 1999.*

The following data use objectives were indicated in the *SAP:*

TO DETERMINE WHETHER AIR EXHAUST SYSTEMS SHOULD BE INSTALLED IN RESIDENTIAL CRAWLSPACES.

TO DETERMINE THE VOLUME OF SOIL THAT NEEDS TO BE ADDRESSED FOR REMOVAL AND/OR REMEDIATION.

TO PROVIDE INITIAL DATA NECESSARY TO BEGIN A HAZARD RANKING SYSTEM PACKAGE FOR THE SITE.

TO DETERMINE WHETHER FURTHER SITE CHARACTERIZATION IS NECESSARY.

THE DATA ARE USABLE FOR THE ABOVE OBJECTIVES.

B. These data meet quality objectives stated in the *SAP.*

AS INDICATED IN SECTION 3.5.2 OF THE SAP, THE INVESTIGATION WILL GENERATE DEFINITIVE DATA AND TABLE 3-2 OF THE SAP OUTLINES THE DATA QUALITY INDICATOR GOALS APPLICABLE TO THE DEFINITIVE DATA QUALITY LEVEL. THE DATA IN THIS PACKAGE MEET THESE REQUIREMENTS.

15. DOCUMENTATION OF LABORATORY CORRECTIVE

Problem: No problems requiring corrective action were found.

Resolution: Not required.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

APPENDIX A. ANNOTATED DATA SUMMARY SHEETS

Attached are copies of all data summary sheets, with data qualifiers indicated (hand-annotated), and a copy of the chains of custody for the samples.

When appropriate, the practical quantitation limits have been adjusted to reflect the qualifications noted during the data validation. Errors in the reporting of detected results will not usually be changed by hand. In these cases, the laboratory may be required to re-submit the affected data summary sheets and any associated portions of the data package.

The following data validation qualifiers may be used in this review. Their definitions are taken from the EPA OSWER directive, *Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan and Data Validation Procedures* (EPA/540/G-90/004, OSWER Directive 9360.4-01, dated April 1990).

J	The associated numerical value is an estimated quantity because the reported concentrations were less than the required practical quantitation limits or because quality control criteria were not met.
R	The sample results are rejected (analyte may or may not be present) due to gross deficiencies in quality control criteria. Any reported value is unusable. Resampling and/or reanalysis is necessary for verification.
U	The material was analyzed for, but not detected. The associated numerical value is the sample practical quantitation limit or adjusted sample practical quantitation limit.
UJ	The material was analyzed for, but not detected. The reported practical quantitation limit is estimated because quality control criteria were not met.
NJ	Presumptive evidence of the presence of the material (tentatively identified compound) at an estimated quantity.

AIR TOXICS LTD.

SAMPLE NAME : CA-101

ID#: 0004465B-01A

EPA METHOD TO-14 GC/MS

File Name:	t050610	**Date of Collection:**	**4/24/00**
Dil. Factor:	1.96	**Date of Analysis:**	**5/6/00**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.020	0.051	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : AA-105

ID#: 0004465B-02A

EPA METHOD TO-14 GC/MS

File Name:	1050611	Date of Collection:	4/24/00
Dil. Factor:	2.06	Date of Analysis:	5/6/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.021	0.054	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : CA-102

ID#: 0004465B-03A

EPA METHOD TO-14 GC/MS

File Name:	t050612	Date of Collection:	4/24/00
Dil. Factor:	2.01	Date of Analysis:	5/6/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.020	0.052	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : AA-101

ID#: 0004465B-04A

EPA METHOD TO-14 GC/MS

File Name:	t050613	Date of Collection:	4/24/00
Dil. Factor:	2.01	Date of Analysis:	5/6/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.020	0.052	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : AA-102

ID#: 0004465B-05A

EPA METHOD TO-14 GC/MS

File Name:	t050614	Date of Collection:	4/24/00
Dil. Factor:	2.30	Date of Analysis:	5/6/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.023	0.060	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : AA-100

ID#: 0004465B-06A

EPA METHOD TO-14 GC/MS

File Name:	t050615	Date of Collection:	4/24/00
Dil. Factor:	2.30	Date of Analysis:	5/6/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.023	0.060	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : CA-100

ID#: 0004465B-07A

EPA METHOD TO-14 GC/MS

File Name:	t050704	Date of Collection:	4/24/00
Dil. Factor:	1.71	Date of Analysis:	5/7/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.017	0.044	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : SG-101

ID#: 0004465B-08A

EPA METHOD TO-14 GC/MS

File Name:	t050705		**Date of Collection: 4/24/00**
Dil. Factor:	1.41		**Date of Analysis: 5/7/00**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.014	0.037	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : SG-100

ID#: 0004465B-09A

EPA METHOD TO-14 GC/MS

File Name:	t050706	Date of Collection:	4/24/00
Dil. Factor:	1.41	Date of Analysis:	5/7/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.014	0.037	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : AA-103

ID#: 0004465B-10A

EPA METHOD TO-14 GC/MS

File Name:	t050707	Date of Collection:	4/24/00
Dil. Factor:	1.75	Date of Analysis:	5/7/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.018	0.045	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : SG-102

ID#: 0004465B-11A

EPA METHOD TO-14 GC/MS

File Name:	t050708		**Date of Collection: 4/24/00**
Dil. Factor:	1.44		**Date of Analysis: 5/7/00**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.014	0.037	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : SG-103

ID#: 0004465B-12A

EPA METHOD TO-14 GC/MS

File Name:	t050709	Date of Collection:	4/24/00
Dil. Factor:	1.41	Date of Analysis:	5/7/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.014	0.037	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : AA-104

ID#: 0004465B-13A

EPA METHOD TO-14 GC/MS

File Name:	t050710	**Date of Collection:**	4/24/00
Dil. Factor:	1.61	**Date of Analysis:**	5/7/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.016	0.042	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : CA-104

ID#: 0004465B-14A

EPA METHOD TO-14 GC/MS

File Name:	t050711	Date of Collection:	4/24/00
Dil. Factor:	1.30	Date of Analysis:	5/7/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.013	0.034	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : SG-104

ID#: 0004465B-15A

EPA METHOD TO-14 GC/MS

File Name:	t050712	**Date of Collection:**	4/24/00
Dil. Factor:	1.41	**Date of Analysis:**	5/7/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.014	0.037	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : AA-107

ID#: 0004465B-16A

EPA METHOD TO-14 GC/MS

File Name:	t050713		**Date of Collection: 4/24/00**
Dil. Factor:	1.39		**Date of Analysis: 5/7/00**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.014	0.036	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : AA-107-DUP

ID#: 0004465B-16AA

EPA METHOD TO-14 GC/MS

File Name:	t050714	**Date of Collection:**	4/24/00
Dil. Factor:	1.39	**Date of Analysis:**	5/7/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.014	0.036	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : Lab Blank

ID#: 0004465B-17A

EPA METHOD TO-14 GC/MS

File Name:	t050606	**Date of Collection: NA**	
Dil. Factor:	1.00	**Date of Analysis: 5/6/00**	

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.010	0.026	Not Detected	Not Detected

Container Type: NA

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : Lab Blank

ID#: 0004465B-17B

EPA METHOD TO-14 GC/MS

File Name:	t050703	**Date of Collection: NA**	
Dil. Factor:	1.00	**Date of Analysis: 5/7/00**	

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.010	0.026	Not Detected	Not Detected

Container Type: NA

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130

5/30/00

Office of Enforcement

CHAIN OF CUSTODY RECORD

UU0440

San Francisco, California 94105

0254

PROJ. NO.	PROJECT NAME
090256 DCST	DC Metals

SAMPLERS: (Signature)

Mcleod, C. LeCompte, W. Duncan

STA. NO.	DATE	TIME	Time comp. Integrated	GRAB	STATION LOCATION	NO. OF CONTAINERS	TO14/15 by S/M	Initial Pressure	Start Time	Stop Time	Final Pressure	Init. Pres. of WS5/1105	REMARKS
	4/24/00				~~CA-103~~	1	✓	30	0913	1430	10		e Mcleod
01A			✓		CA-101	1	✓	30	846	1248	10		9.5 Hg
02A			✓		AA-105	1	✓	27	1052	1508	11		10.5 Hg
03A			✓		CA-102	1	✓	30	853	1249	10.5		10.0 Hg
04A			✓		AA-101	1	✓	29	838	1247	10		10.0 Hg
05A			✓		AA-102	1	✓	30	848	1249	14		12.5 Standard turn around
06A			✓		AA-100	1	✓	29.5	838	1247	14		12.5 for all samples.
07A			✓		CA-100	1	✓	30	846	1248	11		10.5 Hg
08A				✓	SG-101	1	✓	28.5	1257		Ø		1.5 Hg FAX data summaries
09A				✓	SG-100	1	✓	29.5	1309		Ø		1.5 Hg to: C. Mcleod
10A			✓		AA-103	1	✓	30	904	1432	8		7.0 Hg 415 981-0801
11A				✓	SG-102	1	✓	28.5	1310		Ø		2.0 Hg
12A				✓	SG-103	1	✓	28.5	1434		Ø		1.5 Hg
13A			✓		AA-104	1	✓	29	940	1448	Ø3.5		5.0 Hg
14A			✓		CA-104	1	✓	30	939	1452	Ø		0.4 psi

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mcleod	4/25/00 –	To Fedex			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	4-20-00 905	[signature] - ATC			
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time		

Remarks: Data package to:
C. Mcleod, Ecology & Environment, Inc.
350 Sansome St, Suite 300
San Francisco, CA 94104

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

Custody Seal Intact (Y) N None Temp. [signature]

9 25022

CHAIN OF CUSTODY RECORD

PROJ NO.	PROJECT NAME
090256 DCST	DC Metals

SAMPLERS: *(Signature)*
C Mcleod, C. LeCompte, W. Duncan

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TO/14/15 by SIM	TO/14/15	Initial Pressure	Start Time	End Time	Final Pressure	REMARKS	Init. Pressure 4/20
15A	4/24/00			✓	SG-104	1	✓	~~30~~ sec	30	1450		ø		1.5Hg
16A			✓		AA-107	1	✓		29.5	933	1459	7.0		1.0Hg
				✓	SG-25	1		✓	30	1636		ø	NOT SIM	
				✓	SG-110	1		✓	24.5	1612		ø	" "	
				✓	SG-111	1		✓	27	1612		ø	" "	

Standard turn-around for all samples.

FAX data summaries to:
C. McLeod 415 981-0801

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
CMcleod	4/25/00 -	To Fedex			
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
	4-27-00 905				
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks Data package to: C. Mcleod, Ecology & Environment, Inc. 350 Sansome St. Suite 300 San Francisco, CA 94104	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

Custody Seal Intact? Y N None Temp. 4°C

9 25023

DATA SUMMARIES

Sample Marix: Soil Gas
Analysis: Volatile Organics by TO-14
Sample Date(s): 4/24/00
Laboratory: Air Toxics, Ltd.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX
Laboratory: Air Toxics LTD.	Lab Project Number: 0004465A
Sampling Dates: 04/24/00	Sample Matrix: Soil gas
Analytical Method: *GC-MS (EPA TO-14)*	Data Reviewer: Mindy Song

REVIEW AND APPROVAL:

Data Reviewer: Mindy C. Song _____ Date: 5/30/00

Technical QA Reviewer: _____ Date: _____

Project Manager: _____ Date: 6/9/00

SAMPLE IDENTIFICATION:

Sample No.	Sample I.D.	Laboratory I.D.
1	SG-25	0004465A-17A
2	SG-110	0004465A-18A
3	SG-111	0004465A-19A
4		
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20		

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

DATA PACKAGE COMPLETENESS CHECKLIST:

Checklist Code:

- X — Included: no problems
- * — Included: problems noted in review
- O — Not Included and/or Not Available
- NR — Not Required
- RS — Provided As Re-submission

Case Narrative:

- X — Case Narrative present

Quality Control Summary Package:

- X — Data Summary sheets
- O — Matrix Spike/Spike Duplicate Recoveries
- X — Laboratory Control Sample Recoveries
- X — Method Blank Summaries
- X — GC/MS Tuning and Mass Calibration
- X — Initial Calibration Data
- X — Continuing Calibration Data
- X — Surrogate Compound Recovery Summary
- X — Internal Standard Area Summary

Sample and Blank Data Package Section

- X — Reconstructed Ion Current (RIC) Chromatogram
- X — Quantitation Reports
- X — Raw and Enhanced Mass Spectra
- X — Reference Mass Spectra for Target Compounds
- NR — Mass Spectral Library Search for TICs

Raw QC Data Package Section

- X — DFTPP and/or BFB mass spectra and mass listings
- X — RIC Chromatogram for Standards, LCS, and MS/MSD
- X — Quantitation Reports for Standards, LCS, and MS/MSD
- NR — List of Instrument Detection Limits
- X — Chain-of-Custody Records
- X — Sample Preparation and Analysis Run Logs

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

DATA VALIDATION SUMMARY

The data were reviewed following procedures and limits specified in the EPA OSWER directive, *Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan and Data Validation Procedures* (EPA/540/G-90/004, OSWER Directive 9360.4-01, dated April 1990).

Indicate with a YES or NO whether each item is acceptable:

1	Holding Times	YES
2	GC/MS Tuning Criteria	YES
3	Initial Calibrations	YES
4	Continuing Calibrations	YES
5	Laboratory Control Sample	YES
6	Matrix Spike/Matrix Spike Duplicate	NA
7	Blanks and Background Samples	YES
8	Surrogate Compounds	YES
9	Internal Standards	YES
10	Duplicate Analyses	YES(LCS)
11	Analyte Identification	YES
12	Analyte Quantitation	YES
13	Overall Assessment of Data	YES
14	Usability of Data	YES

Comments: Three 6L Summa Canister samples were delivered to the laboratory for VOC's by EPA Methods TP-14/TO-15 using GC/MS in the full scan mode. NA: Not Available.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

1. HOLDING TIMES

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Samples were extracted and analyzed within required holding times except as noted under Comments. In addition, no problems were identified with regard to sample preservation or custody unless specified. For those samples analyzed outside holding time requirements, the detected results have been qualified as estimated (J), and the nondetected results have been qualified either as estimated (UJ) or rejected (R) based on the reviewer's judgement.

Water Samples:
EPA 8260B: 14 days (from collection) for analysis.
EPA 8270C: 7 days (from collection) for extraction; 40 days (from extraction) for analysis.
Soil or Other Matrices:
EPA 8260B: 14 days (from collection) for analysis.
EPA 8270C:14 days (from collection) for extraction;40 days (from extraction) for analysis.

Comments: The samples were analyzed 14 days from the time of collection.

2. GC/MS INSTRUMENT PERFORMANCE CRITERIA

__X__ BFB (EPA 8260B) or DFTPP (EPA 8270C) has been run for every 12 hours of sample analysis per instrument.

__X__ The BFB or DFTPP ion abundance criteria indicated in EPA/540/G-90/004 have been met for each instrument.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

3. INITIAL CALIBRATIONS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Unless flagged below, a 5-point initial calibration was run. In addition, average Relative Response Factor (RRF), and percent relative Standard Deviation (%RSD) values were within control limits (average RRF >= 0.05; %RSD <= 30). For analytes which exceeded the %RSD control limit, associated detected results are qualified as estimated (J). If the low calibration level was not detected, the nondetected results are qualified (UJ). For analytes which exceeded the RRF control limit, associated detected results are qualified as estimated (J) and the nondetected results are qualified as rejected (R).

Comments: None.

4. CONTINUING CALIBRATIONS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Unless flagged below, continuing calibrations were performed at the beginning and at the end of any group of samples and at least every 12 hours. In addition, Percent Difference (%D) values were within the control limit (%D <= 25). For analytes which exceeded the %D control limit, associated detected results are qualified as estimated (J). In cases where the %D is very high and indicates a severe loss of instrument sensitivity, the associated nondetected results may be qualified as estimated (UJ) or rejected (R) based on the professional judgement of the reviewer.

Comments: None.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

5. LABORATORY CONTROL SAMPLE

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
_____ No Laboratory Control Samples Analyzed

Laboratory control sample recoveries are used for a qualitative indication of accuracy (bias) independent of matrix effects. Spike recovery limits of 80% to 120% are specified in EPA/540/G-90/004. For analytes which exceeded these control limits, associated detected results are qualified as estimated (J). At the discretion of the reviewer, other limits may be used only if justification can be provided.

Comments: All recoveries were within the control limits.

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

_____ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
__X__ No Matrix Spike/Matrix Spike Duplicates Analyzed

Matrix spike and matrix spike duplicate recoveries are used for a qualitative indication of accuracy (bias) due to matrix effects. The RPD between the recoveries is used for a qualitative indication of precision. Spike recovery limits of 80% to 120% are specified in EPA/540/G-90/004. For analytes which exceeded these control limits, associated detected results are qualified as estimated (J). At the discretion of the reviewer, other limits may be used only if justification can be provided.

Comments: LCS and LCD were analyzed.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

7. BLANKS AND BACKGROUND SAMPLES

__X__ Acceptable
_____ Detection Limits Adjusted

The following blanks were analyzed:
__X__ Method (preparation) Blanks
_____ Field Blanks
_____ Instrument Blanks
_____ Rinsate Blanks
_____ Background Samples
_____ VOA Trip Blanks

Preparation (method) blanks were prepared for each batch of samples extracted. A preparation blank was analyzed after every continuing calibration standard, prior to sample analysis unless noted below. Any compound detected in the sample and also detected in any associated blank, must be qualified as non-detect (U) when the sample concentration is less than 5x the blank concentration.

Comments: No contamination was found in the method blank.

8. SURROGATE COMPOUNDS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Surrogate compound recoveries for samples analyzed within a sample group must be within the limits specified in the method. If the surrogate recovery is between 10% and the lower limit, the associated detected results are qualified as estimated (J) and the nondetected results are qualified as estimated (UJ). If the surrogate recovery is <10%, the associated detected results are qualified as estimated (J) and the nondetected results are rejected (R). If the surrogate recovery is above the upper limit, the associated detected results are qualified as estimated (J). Surrogate recoveries which exceeded these limits are noted below and the associated results are qualified on the attached sample report forms.

Comments: All surrogate recoveries were within the control limits.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

9. INTERNAL STANDARDS

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable

Internal Standard area counts for samples analyzed within a sample group must be within the range of 50% to 200% of the internal standard area for the continuing calibration. If the internal standard area is between 10% and 50% of this value, the associated detected results are qualified as estimated (J) and the nondetected results are qualified as estimated (UJ). If the internal standard area is <10% of the calibration area, both the detected and nondetected results are rejected (R). If the internal standard area is >200% of the calibration area, the associated detected results are qualified as estimated (J). Internal standards which exceeded these limits are noted below and the associated results are qualified on the attached sample report forms.

Comment: All internal Standard area counts were within 40% of daily CCV internal standards.

10. DUPLICATE ANALYSES

__X__ Acceptable
_____ Acceptable with qualification
_____ Unacceptable
_____ No Duplicates Analyzed

Type of duplicates analyzed:
_____ Field Duplicates
__X__ Laboratory Duplicates

Calculate the relative Percent Difference (RPD) between the members of duplicate pairs using the equation indicated below. Qualify the results as estimated (J) for any analyte whose RPD exceeds that specified in the Sampling and Analysis Plan.

$$RPD = \frac{2(Value\ 1 - Value\ 2)}{Value\ 1 + Value\ 2} \times 100\%$$

Comments: RPD's of LCS/LCD < 10%.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

11. ANALYTE IDENTIFICATION

Evaluate the ion profiles for the sample analytes and compare them to the library ion profiles provided by the laboratory. Note any identifications which are not sufficiently supported by comparison to known ion profiles.

Comments: Analyte identification is acceptable.

12. ANALYTE QUANTITATION

Confirm that analyte quantitation was performed correctly using the following formulas:

EPA 8260B, water samples:

$$\text{ug/L} = \frac{\text{(analyte area)(amount of internal standard, ng)}}{\text{(internal standard area)(RF)(volume of water purged, mL)}}$$

EPA 8260B, soil samples:

$$\text{ug/kg} = \frac{\text{(analyte area)(amount of internal standard, ng)}}{\text{(internal standard area)(RF)(weight of soil extracted, g)(fraction solids)}}$$

EPA 8270C, water samples:

$$\text{ug/L} = \frac{\text{(analyte area)(amount of internal standard, ng)(total volume of extract, uL)}}{\text{(internal standard area)(RF)(volume of sample extracted, mL)(injection volume, uL)}}$$

EPA 8270C, soil samples:

$$\text{ug/kg} = \frac{\text{(analyte area)(amount of internal standard, ng)(total volume of extract, uL)}}{\text{(internal standard area)(RF)(weight of sample extracted, g)(fraction solids)(injection volume, uL)}}$$

Comments: Analyte quantitation is acceptable.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

13. OVERALL ASSESSMENT OF DATA

On the basis of this review, the following determination has been made with regard to the overall data usability for the specified level.

__X__ **Acceptable**
_____ **Acceptable with Qualification**
_____ **Rejected**

Accepted data meet the minimum requirements for the following EPA data category:
_____ **ERS Screening**
_____ **Non-definitive with 10 % Conformation by Definitive Methodology**
_____ **Definitive, Comprehensive Statistical Error Determination was performed.**
__X__ **Definitive, Comprehensive Statistical Error Determination was not performed.**

Any qualifications to individual sample analysis results are detailed in the appropriate section above or appear under the comments section below. In cases where several QC criteria are out of specification, it may be appropriate to further qualify the data usability. The data reviewer must use professional judgment and express concerns and comments on the data validity for each specific data package.

Comments: Data as reported is valid.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

14. USABILITY OF DATA

A. These data are considered usable for the following the data use objectives stated in the *DC METALS SITE, OAKLAND, CALIFORNIA, FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN (SAP), AUGUST 1999.*

The following data use objectives were indicated in the *SAP:*

TO DETERMINE WHETHER AIR EXHAUST SYSTEMS SHOULD BE INSTALLED IN RESIDENTIAL CRAWLSPACES.

TO DETERMINE THE VOLUME OF SOIL THAT NEEDS TO BE ADDRESSED FOR REMOVAL AND/OR REMEDIATION.

TO PROVIDE INITIAL DATA NECESSARY TO BEGIN A HAZARD RANKING SYSTEM PACKAGE FOR THE SITE.

TO DETERMINE WHETHER FURTHER SITE CHARACTERIZATION IS NECESSARY.

THE DATA ARE USABLE FOR THE ABOVE OBJECTIVES.

B. These data meet quality objectives stated in the *SAP.*

AS INDICATED IN SECTION 3.5.2 OF THE SAP, THE INVESTIGATION WILL GENERATE DEFINITIVE DATA AND TABLE 3-2 OF THE SAP OUTLINES THE DATA QUALITY INDICATOR GOALS APPLICABLE TO THE DEFINITIVE DATA QUALITY LEVEL. THE DATA IN THIS PACKAGE MEET THESE REQUIREMENTS.

15. DOCUMENTATION OF LABORATORY CORRECTIVE

Problem: No problems requiring corrective action were found.

Resolution: Not required.

ANALYTICAL DATA REVIEW SUMMARY

Site Name: DC Metals	Location: Oakland, California
Project TDD Number: 09-97-12-0005	PAN: 0256-DCST-XX

APPENDIX A. ANNOTATED DATA SUMMARY SHEETS

Attached are copies of all data summary sheets, with data qualifiers indicated (hand-annotated), and a copy of the chains of custody for the samples.

When appropriate, the practical quantitation limits have been adjusted to reflect the qualifications noted during the data validation. Errors in the reporting of detected results will not usually be changed by hand. In these cases, the laboratory may be required to re-submit the affected data summary sheets and any associated portions of the data package.

The following data validation qualifiers may be used in this review. Their definitions are taken from the EPA OSWER directive, *Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan and Data Validation Procedures* (EPA/540/G-90/004, OSWER Directive 9360.4-01, dated April 1990).

J The associated numerical value is an estimated quantity because the reported concentrations were less than the required practical quantitation limits or because quality control criteria were not met.

R The sample results are rejected (analyte may or may not be present) due to gross deficiencies in quality control criteria. Any reported value is unusable. Resampling and/or reanalysis is necessary for verification.

U The material was analyzed for, but not detected. The associated numerical value is the sample practical quantitation limit or adjusted sample practical quantitation limit.

UJ The material was analyzed for, but not detected. The reported practical quantitation limit is estimated because quality control criteria were not met.

NJ Presumptive evidence of the presence of the material (tentatively identified compound) at an estimated quantity.

AIR TOXICS LTD.

SAMPLE NAME : SG-25

ID#: 0004465A-17A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	**I050816**	**Date of Collection:**	**4/24/00**
Dil. Factor:	**17.9**	**Date of Analysis:**	**5/8/00**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	9.0	45	Not Detected	Not Detected
Freon 114	9.0	64	Not Detected	Not Detected
Chloromethane	9.0	19	Not Detected	Not Detected
Vinyl Chloride	9.0	23	820	2100
Bromomethane	9.0	35	Not Detected	Not Detected
Chloroethane	9.0	24	370	1000
Freon 11	9.0	51	Not Detected	Not Detected
1,1-Dichloroethene	9.0	36	Not Detected	Not Detected
Freon 113	9.0	70	1000	8000
Methylene Chloride	9.0	32	Not Detected	Not Detected
1,1-Dichloroethane	9.0	37	270	1100
cis-1,2-Dichloroethene	9.0	36	36	140
Chloroform	9.0	44	Not Detected	Not Detected
1,1,1-Trichloroethane	9.0	50	Not Detected	Not Detected
Carbon Tetrachloride	9.0	57	Not Detected	Not Detected
Benzene	9.0	29	57	180
1,2-Dichloroethane	9.0	37	Not Detected	Not Detected
Trichloroethene	9.0	49	Not Detected	Not Detected
1,2-Dichloropropane	9.0	42	Not Detected	Not Detected
cis-1,3-Dichloropropene	9.0	41	Not Detected	Not Detected
Toluene	9.0	34	25	96
trans-1,3-Dichloropropene	9.0	41	Not Detected	Not Detected
1,1,2-Trichloroethane	9.0	50	Not Detected	Not Detected
Tetrachloroethene	9.0	62	17	120
Ethylene Dibromide	9.0	70	Not Detected	Not Detected
Chlorobenzene	9.0	42	Not Detected	Not Detected
Ethyl Benzene	9.0	39	Not Detected	Not Detected
m,p-Xylene	9.0	40	Not Detected	Not Detected
o-Xylene	9.0	40	Not Detected	Not Detected
Styrene	9.0	39	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	9.0	62	Not Detected	Not Detected
1,3,5-Trimethylbenzene	9.0	45	Not Detected	Not Detected
1,2,4-Trimethylbenzene	9.0	45	11	53
1,3-Dichlorobenzene	9.0	55	Not Detected	Not Detected
1,4-Dichlorobenzene	9.0	55	Not Detected	Not Detected
Chlorotoluene	9.0	47	Not Detected	Not Detected
1,2-Dichlorobenzene	9.0	55	Not Detected	Not Detected
1,2,4-Trichlorobenzene	9.0	68	Not Detected	Not Detected
Hexachlorobutadiene	9.0	97	Not Detected	Not Detected
Propylene	36	63	Not Detected	Not Detected
1,3-Butadiene	36	80	Not Detected	Not Detected
Acetone	36	86	Not Detected	Not Detected

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : SG-25

ID#: 0004465A-17A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	**I050816**	**Date of Collection:**	**4/24/00**
Dil. Factor:	**17.9**	**Date of Analysis:**	**5/8/00**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	36	110	Not Detected	Not Detected
2-Propanol	36	89	Not Detected	Not Detected
trans-1,2-Dichloroethene	36	140	Not Detected	Not Detected
Vinyl Acetate	36	130	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	36	110	Not Detected	Not Detected
Hexane	36	130	1800	6600
Tetrahydrofuran	36	110	Not Detected	Not Detected
Cyclohexane	36	120	Not Detected	Not Detected
1,4-Dioxane	36	130	Not Detected	Not Detected
Bromodichloromethane	36	240	Not Detected	Not Detected
4-Methyl-2-pentanone	36	150	Not Detected	Not Detected
2-Hexanone	36	150	Not Detected	Not Detected
Dibromochloromethane	36	310	Not Detected	Not Detected
Bromoform	36	380	Not Detected	Not Detected
4-Ethyltoluene	36	180	Not Detected	Not Detected
Ethanol	36	68	Not Detected	Not Detected
Methyl tert-Butyl Ether	36	130	Not Detected	Not Detected
Heptane	36	150	530	2200

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	108	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : SG-110

ID#: 0004465A-18A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	I050814	Date of Collection:	4/24/00
Dil. Factor:	1.41	Date of Analysis:	5/8/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.70	3.5	Not Detected	Not Detected
Freon 114	0.70	5.0	Not Detected	Not Detected
Chloromethane	0.70	1.5	0.94	2.0
Vinyl Chloride	0.70	1.8	Not Detected	Not Detected
Bromomethane	0.70	2.8	Not Detected	Not Detected
Chloroethane	0.70	1.9	Not Detected	Not Detected
Freon 11	0.70	4.0	Not Detected	Not Detected
1,1-Dichloroethene	0.70	2.8	Not Detected	Not Detected
Freon 113	0.70	5.5	Not Detected	Not Detected
Methylene Chloride	0.70	2.5	Not Detected	Not Detected
1,1-Dichloroethane	0.70	2.9	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.70	2.8	Not Detected	Not Detected
Chloroform	0.70	3.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.70	3.9	Not Detected	Not Detected
Carbon Tetrachloride	0.70	4.5	Not Detected	Not Detected
Benzene	0.70	2.3	Not Detected	Not Detected
1,2-Dichloroethane	0.70	2.9	Not Detected	Not Detected
Trichloroethene	0.70	3.8	Not Detected	Not Detected
1,2-Dichloropropane	0.70	3.3	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.70	3.2	Not Detected	Not Detected
Toluene	0.70	2.7	0.91	3.5
trans-1,3-Dichloropropene	0.70	3.2	Not Detected	Not Detected
1,1,2-Trichloroethane	0.70	3.9	Not Detected	Not Detected
Tetrachloroethene	0.70	4.9	Not Detected	Not Detected
Ethylene Dibromide	0.70	5.5	Not Detected	Not Detected
Chlorobenzene	0.70	3.3	Not Detected	Not Detected
Ethyl Benzene	0.70	3.1	Not Detected	Not Detected
m,p-Xylene	0.70	3.1	Not Detected	Not Detected
o-Xylene	0.70	3.1	Not Detected	Not Detected
Styrene	0.70	3.0	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.70	4.9	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.70	3.5	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.70	3.5	Not Detected	Not Detected
1,3-Dichlorobenzene	0.70	4.3	Not Detected	Not Detected
1,4-Dichlorobenzene	0.70	4.3	Not Detected	Not Detected
Chlorotoluene	0.70	3.7	Not Detected	Not Detected
1,2-Dichlorobenzene	0.70	4.3	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.70	5.3	Not Detected	Not Detected
Hexachlorobutadiene	0.70	7.6	Not Detected	Not Detected
Propylene	2.8	4.9	Not Detected	Not Detected
1,3-Butadiene	2.8	6.3	Not Detected	Not Detected
Acetone	2.8	6.8	7.0	17

5/8/00

AIR TOXICS LTD.

SAMPLE NAME : SG-110

ID#: 0004465A-18A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	**I050814**	**Date of Collection:**	**4/24/00**
Dil. Factor:	**1.41**	**Date of Analysis:**	**5/8/00**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	2.8	8.9	Not Detected	Not Detected
2-Propanol	2.8	7.0	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.8	11	Not Detected	Not Detected
Vinyl Acetate	2.8	10	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.8	8.4	Not Detected	Not Detected
Hexane	2.8	10	Not Detected	Not Detected
Tetrahydrofuran	2.8	8.4	Not Detected	Not Detected
Cyclohexane	2.8	9.9	Not Detected	Not Detected
1,4-Dioxane	2.8	10	Not Detected	Not Detected
Bromodichloromethane	2.8	19	Not Detected	Not Detected
4-Methyl-2-pentanone	2.8	12	Not Detected	Not Detected
2-Hexanone	2.8	12	Not Detected	Not Detected
Dibromochloromethane	2.8	24	Not Detected	Not Detected
Bromoform	2.8	30	Not Detected	Not Detected
4-Ethyltoluene	2.8	14	Not Detected	Not Detected
Ethanol	2.8	5.4	4.6	8.8
Methyl tert-Butyl Ether	2.8	10	Not Detected	Not Detected
Heptane	2.8	12	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	111	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : SG-111

ID#: 0004465A-19A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	**I050813**	**Date of Collection:**	**4/24/00**
Dil. Factor:	**1.34**	**Date of Analysis:**	**5/8/00**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.67	3.4	Not Detected	Not Detected
Freon 114	0.67	4.8	Not Detected	Not Detected
Chloromethane	0.67	1.4	1.1	2.2
Vinyl Chloride	0.67	1.7	Not Detected	Not Detected
Bromomethane	0.67	2.6	Not Detected	Not Detected
Chloroethane	0.67	1.8	Not Detected	Not Detected
Freon 11	0.67	3.8	Not Detected	Not Detected
1,1-Dichloroethene	0.67	2.7	Not Detected	Not Detected
Freon 113	0.67	5.2	Not Detected	Not Detected
Methylene Chloride	0.67	2.4	0.77	2.7
1,1-Dichloroethane	0.67	2.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.67	2.7	Not Detected	Not Detected
Chloroform	0.67	3.3	Not Detected	Not Detected
1,1,1-Trichloroethane	0.67	3.7	Not Detected	Not Detected
Carbon Tetrachloride	0.67	4.3	Not Detected	Not Detected
Benzene	0.67	2.2	Not Detected	Not Detected
1,2-Dichloroethane	0.67	2.8	Not Detected	Not Detected
Trichloroethene	0.67	3.6	Not Detected	Not Detected
1,2-Dichloropropane	0.67	3.1	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.67	3.1	Not Detected	Not Detected
Toluene	0.67	2.6	1.0	3.9
trans-1,3-Dichloropropene	0.67	3.1	Not Detected	Not Detected
1,1,2-Trichloroethane	0.67	3.7	Not Detected	Not Detected
Tetrachloroethene	0.67	4.6	Not Detected	Not Detected
Ethylene Dibromide	0.67	5.2	Not Detected	Not Detected
Chlorobenzene	0.67	3.1	Not Detected	Not Detected
Ethyl Benzene	0.67	3.0	Not Detected	Not Detected
m,p-Xylene	0.67	3.0	Not Detected	Not Detected
o-Xylene	0.67	3.0	Not Detected	Not Detected
Styrene	0.67	2.9	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.67	4.7	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.67	3.3	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.67	3.3	Not Detected	Not Detected
1,3-Dichlorobenzene	0.67	4.1	Not Detected	Not Detected
1,4-Dichlorobenzene	0.67	4.1	Not Detected	Not Detected
Chlorotoluene	0.67	3.5	Not Detected	Not Detected
1,2-Dichlorobenzene	0.67	4.1	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.67	5.0	Not Detected	Not Detected
Hexachlorobutadiene	0.67	7.3	Not Detected	Not Detected
Propylene	2.7	4.7	Not Detected	Not Detected
1,3-Butadiene	2.7	6.0	Not Detected	Not Detected
Acetone	2.7	6.5	4.7	11

5/9/00

AIR TOXICS LTD.

SAMPLE NAME : SG-111

ID#: 0004465A-19A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	I050813	**Date of Collection:**	**4/24/00**
Dil. Factor:	**1.34**	**Date of Analysis:**	**5/8/00**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	2.7	8.5	Not Detected	Not Detected
2-Propanol	2.7	6.7	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.7	11	Not Detected	Not Detected
Vinyl Acetate	2.7	9.6	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.7	8.0	Not Detected	Not Detected
Hexane	2.7	9.6	Not Detected	Not Detected
Tetrahydrofuran	2.7	8.0	Not Detected	Not Detected
Cyclohexane	2.7	9.4	Not Detected	Not Detected
1,4-Dioxane	2.7	9.8	Not Detected	Not Detected
Bromodichloromethane	2.7	18	Not Detected	Not Detected
4-Methyl-2-pentanone	2.7	11	Not Detected	Not Detected
2-Hexanone	2.7	11	Not Detected	Not Detected
Dibromochloromethane	2.7	23	Not Detected	Not Detected
Bromoform	2.7	28	Not Detected	Not Detected
4-Ethyltoluene	2.7	13	Not Detected	Not Detected
Ethanol	2.7	5.1	Not Detected	Not Detected
Methyl tert-Butyl Ether	2.7	9.8	Not Detected	Not Detected
Heptane	2.7	11	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	105	70-130

5/30/00

AIR TOXICS LTD.

SAMPLE NAME : Lab Blank

ID#: 0004465A-20A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	**I050808**	**Date of Collection:**	**NA**
Dil. Factor:	**1.00**	**Date of Analysis:**	**5/8/00**

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.50	2.5	Not Detected	Not Detected
Freon 114	0.50	3.6	Not Detected	Not Detected
Chloromethane	0.50	1.0	Not Detected	Not Detected
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Bromomethane	0.50	2.0	Not Detected	Not Detected
Chloroethane	0.50	1.3	Not Detected	Not Detected
Freon 11	0.50	2.8	Not Detected	Not Detected
1,1-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Freon 113	0.50	3.9	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Carbon Tetrachloride	0.50	3.2	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
1,2-Dichloropropane	0.50	2.3	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
Toluene	0.50	1.9	Not Detected	Not Detected
trans-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
1,1,2-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
Ethylene Dibromide	0.50	3.9	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
Ethyl Benzene	0.50	2.2	Not Detected	Not Detected
m,p-Xylene	0.50	2.2	Not Detected	Not Detected
o-Xylene	0.50	2.2	Not Detected	Not Detected
Styrene	0.50	2.2	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.50	3.5	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,3-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
Chlorotoluene	0.50	2.6	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.50	3.8	Not Detected	Not Detected
Hexachlorobutadiene	0.50	5.4	Not Detected	Not Detected
Propylene	2.0	3.5	Not Detected	Not Detected
1,3-Butadiene	2.0	4.5	Not Detected	Not Detected
Acetone	2.0	4.8	Not Detected	Not Detected

5/8/00

AIR TOXICS LTD.

SAMPLE NAME : Lab Blank

ID#: 0004465A-20A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	I050808	**Date of Collection:**	NA
Dil. Factor:	1.00	**Date of Analysis:**	5/8/00

Compound	Det. Limit (ppbv)	Det. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
2-Propanol	2.0	5.0	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
Vinyl Acetate	2.0	7.2	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Hexane	2.0	7.2	Not Detected	Not Detected
Tetrahydrofuran	2.0	6.0	Not Detected	Not Detected
Cyclohexane	2.0	7.0	Not Detected	Not Detected
1,4-Dioxane	2.0	7.3	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
2-Hexanone	2.0	8.3	Not Detected	Not Detected
Dibromochloromethane	2.0	17	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
4-Ethyltoluene	2.0	10	Not Detected	Not Detected
Ethanol	2.0	3.8	Not Detected	Not Detected
Methyl tert-Butyl Ether	2.0	7.3	Not Detected	Not Detected
Heptane	2.0	8.3	Not Detected	Not Detected

Container Type: NA

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	105	70-130

5/30/00

Office of Enforcement

CHAIN OF CUSTODY RECORD

San Francisco, California 94105

PROJ NO.	PROJECT NAME
090256 DCST	DC Metals

SAMPLERS: (Signature)
C Mcleod, C. LeCompte, W. Duncan

STA. NO	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	TO 14/15 by SIM	TO 14/15	Initial Pressure	Start Time	End Time	Final Pressure	REMARKS	T.I.T. Pics. 5/8/00
	4/24/00			✓	SG-104	1	✓	~~20~~ 30	30	1450		ϕ		
			✓		AA-107	1	✓		29.5	933	1459	7.0		
17A				✓	SG-25	1		✓	30	1632		ϕ	NOT SIM	01hg
18A				✓	SG-110	1		✓	24.5	1612		ϕ	" "	1.5Hg
19A				✓	SG-111	1		✓	27	1612		ϕ	" "	01hg

Standard turn-around for all samples.

FAX data summaries to:
C. McLeod 415 981-0801

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
C Mcleod	4/25/00 -	To Fedex			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	4-27-00 905				
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Data package to: C. Mcleod, Ecology & Environment, Inc. 350 Sansome St. Suite 300 San Francisco, CA 94104	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

Seal Intact? Y N None Temp.

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